Ontario Energy Board

VT INCEPIT FIDELIS SIC PERMANET
Ontario

H.R. 22

EXECUTIVE SUMMARIES OF THE ARGUMENTS OF PARTIES TO THE HEARING

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EXECUTIVE SUMMARY OF ADMIC CONTROLS

ADMIC CONTROLS

July 11, 1994

Position of the Urban Development Institute with respect to HR22.

RE: RATES

The Position of the Urban Development Institute is as follows:

1) Ontario Hydro needs overall revenue that is sufficient to maintain its existing physical plant and to meet its debt obligations.

2) Ontario Hydro should follow a path that reduces rather than increases its overall debt.

3) There are a variety of new technologies which make electrical energy conservation and fuel substitution more economically viable than int eh past.

4) Any rate increase received by Ontario Hydro will precipitate a further load loss due to additional energy conservation and fuel substitution.

5) There is danger that, within the building sector, increasing Ontario Hydro's rate may have the net effect of decreasing rather than increasing Ontario Hydro's overall revenue.

Therefore we recommend that Ontario Hydro's rate be kept as low as possible consistent with prudent equipment maintenance and debt service.

EXECUTIVE SUMMARY OF AMOCO CANADA PETROLEUM COMPANY LIMITED

- The proposed Ontario Hydro Back-Up Power Rates should be rejected as an inappropriate discouragement of efficient cogeneration, and as an inaccurate calculation of the actual cost of providing back-up power.

EXECUTIVE SUMMARY OF THE ASSOCIATON OF MAJOR POWER CONSUMERS IN ONTARIO

A. Ontario Hydro's Rates are not Competitive

The primary theme underscoring HR 22 is the lack of competitiveness of Ontario Hydro's rates. Ontario Hydro has recognized that it has become non-competitive both in its evidence before the Board and in its actions. Ontario Hydro's own witnesses indicated that recent Ontario Hydro rate increases had caused it to lose load to the competition. Mr. Strong has emphasized that Ontario Hydro must be driven by market prices with its costs set accordingly. But Ontario Hydro's lack of competitiveness is more evident in its deeds. It has been forced to recommend load retention and experimental surplus rates, it has limited its use of NUGs, and has entered into a special deal with chemical producers in Sarnia to protect its industrial load. All of these developments are clear indications that Ontario Hydro has become non-competitive in a world in which competitiveness is essential for survival of many Ontario industries.

The challenge of the Board in HR 22 is to make recommendations which will assist the utility to realize its ultimate goal of once again becoming competitive where all its ratepayers will enjoy the lowest possible electricity rates. Accordingly, AMPCO recommends that the Board reject Ontario Hydro's proposal to increase rates in 1995 and instead begin the process of regaining Ontario Hydro's competitive position. AMPCO submits achievement of this goal can be initiated through a 1.5% average **decrease** in rates for 1995.

B. AMPCO's Primary Recommendations

A complete summary of AMPCO's recommendations starts on page 6 of this argument. AMPCO's primary recommendations are:

2.1 Rates for 1995 should be based on an average rate decrease of 1.5% as a first step to restoring electricity rates in Ontario to competitive levels.

2.9 Ontario Hydro establish a Working Group to initiate a corporate-wide benchmarking program designed specifically to develop benchmarks for performance measures that would be used as part of the rate review process from 1995 onward.

2.12 Ontario Hydro establish a schedule for the completion of the activities of the Working Group, which would see:

- an initial set of performance measures selected by October 31, 1994;
- benchmarks for these measures selected by December 31, 1994; and
- an assessment of performance against benchmarks by February 24, 1995.

6.1 Ontario Hydro implement for 1995 and beyond, as proposed in Exhibit 6.1.10, the following rates:

- Short Term Incremental Power;
- Guaranteed Rates; and
- Real Time Pricing I and II.

6.2 Ontario Hydro continue the Surplus Power Rate for 1995 as proposed in Exhibit 6.1.10 with the addition of a buy-through option.

6.6 Ontario Hydro maintain the DDS arrangement for existing customers on the same basis as agreed in 1990.

6.9 Ontario Hydro maintain the supplementary and replacement power arrangements as they currently exist and as customers have relied on in making their NUG capital investments.

C. The Scope of AMPCO's Intervention and Summary of AMPCO Evidence

- AMPCO's position is based on the fact that Ontario Hydro's rates, particularly its industrial rates, are uncompetitive.

- It was the increasingly uncompetitive rates that caused Ontario Hydro to set up the Task Force on Change and implement the recommended major restructuring. AMPCO strongly endorses the thrust to reduce costs, make the organization more business oriented and restore rates to competitive levels.

- Although Ontario Hydro has made a good start, the task of restoring Ontario Hydro's rates to competitive levels is far from complete. Ontario Hydro's own rate comparisons and the evidence of AMPCO witnesses from Ford Motor Company and Falconbridge Ltd. clearly indicate that electricity rates, which were once a competitive advantage for Ontario industry, are now a competitive disadvantage. This is particularly acute in the current context of declining international commodity prices.

- Raising rates at the rate of inflation does nothing to correct the situation; it just maintains rates at uncompetitive levels. Consequently, AMPCO is recommending an average rate decrease of 1.5% as a first step to restoring rates to competitive levels.

- To achieve a rate decrease and maintain lower rates over the longer term without jeopardizing financial stability will require continued close attention to cost reduction. Benchmarking is the best way to achieve continued focus on reducing costs and improving performance in the absence of the pressures to achieve efficiency which would come from real competition. AMPCO is encouraged that both Ontario Hydro and the Power Workers' Union have accepted the principle of benchmarking. AMPCO brought expert testimony to the Hearing to make detailed recommendations as to how Ontario Hydro can implement benchmarking on a process-by-process basis.

- AMPCO takes no position on the details of Ontario Hydro's reorganization since that is the business of Ontario Hydro management.

- AMPCO has made a series of financial recommendations that, in total, are more than enough to achieve the required rate decrease. However, AMPCO is not in a position to define explicitly how Ontario Hydro's business plan should be changed to achieve the rate decrease. AMPCO is confident that some mix of these measures, and specific measures that AMPCO has not been able to quantify, will permit the rate decrease to be achieved without threatening Ontario Hydro's financial position.

- Ontario Hydro Enterprises intends to make capital investments in potentially risky ventures. Ontario Hydro International is proposing to invest in overseas power projects, while Ontario Hydro Technologies will invest in the commercial development of new technologies. It is inappropriate for such investments to be financed from revenues derived from the customers of a public utility. Consequently, AMPCO considers that OHE should raise its capital from other public or private sources and that all transactions between Ontario Hydro and OHE should be on an arms-length basis.

- Ontario Hydro's intention to put its business units on a more commercial basis and its intention to unbundle services dictate that energy management services should be increasingly funded from energy management revenues. This will permit a further significant reduction in the amounts included in general rates for energy management services, which only benefit participating customers.

- AMPCO brought an expert witness to discuss Ontario Hydro's proposals for new rates, indicating that these rates represent only a small part of the innovative and ever expanding rate menus being offered throughout North America. He also indicated how North America is moving towards more open and competitive markets for electricity.

- AMPCO supports the Surplus Power Rate, the Short Term Incremental Power and Real Time Pricing. AMPCO witnesses from two customers on the experimental Real Time Pricing I and three customers on the Surplus Power Rate gave evidence of how they have been able to use these rates to increase production, maintain or increase employment, improve profitability and avoid closure of facilities in two cases.

- AMPCO supports the principle of Load Retention Rates as a short term expedient while rates for all customers are being reduced to competitive levels. However, AMPCO has concerns regarding the lack of transparency of the existing and proposed Load Retention Rates. AMPCO considers the agreements with the Energy Joint Venture and Suncor in Sarnia to be effectively load retention and NUG deferral agreements respectively. The terms and conditions are not known and cannot be reviewed to determine whether they are in the public interest. Such agreements are unacceptable for a publicly owned utility.

- AMPCO strongly opposes Ontario Hydro's move to effectively phase out Discount Demand Service by reducing the discount by a factor of 20 over three years. AMPCO's witness was able to show that this is inconsistent with the agreement between AMPCO and Ontario Hydro when DDS was set up. Ontario Hydro has failed to consult with affected customers. The principles of rate stability and predictability are being violated, and Ontario Hydro's credibility is at stake.

- AMPCO also strongly opposes the proposed changes in Back-up rates including the introduction of the facilities and power quality charges. Since supplementary and replacement power will no longer be available, these are compulsory additional charges. Affected customers have not been consulted. AMPCO witnesses testified that the effect was to increase their cost of Back-up by a factor of 4.6 and 9 respectively.

- Ontario Hydro confirmed that its motive for increasing Back-up is to discourage customers adding more self generation. The effect is an unfair increase to existing customers. For those who have made capital investments relying on reasonably priced Back-up, often with Ontario Hydro's encouragement and reassurances, this is an unfair, unilateral change in the rules in the middle of the game.

- AMPCO is concerned that the approach to DDS and Back-up is totally inconsistent with Ontario Hydro's assertion that the "New Ontario Hydro" is sensitive to customers' concerns and its claim to be consulting with affected stakeholders.

D. Summary of AMPCO Recommendations

AMPCO respectfully requests the Board to recommend that:

CHAPTER 1 CORPORATE RESTRUCTURING

1.1 Ontario Hydro include specific reference in its Mission Statement to the objective of becoming the most efficient electric utility in the world.

1.2 Ontario Hydro continue the process of re-engineering to become the most efficient electric utility in the world.

CHAPTER 2 CORPORATE OVERVIEW

2.1 Rates for 1995 should be based on an average rate decrease of 1.5% as a first step to restoring electricity rates in Ontario to competitive levels.

2.2 Ontario Hydro use the median load growth forecast for revenue planning purposes.

2.3 Ontario Hydro adjust the median load growth 0.5% upwards to account for the increase in load due to the reduction in rates by 1.5%.

2.4 Ontario Hydro remove the $100 million corporate cost contingency from its 1995 business plan.

2.5 Ontario Hydro reduce its 1995 revenue requirement by $10 million to reflect the reduction in borrowing costs in 1995 from the expected higher than forecast net income in 1994.

2.6 Ontario Hydro challenge Corporate Overhead and Service Units to reduce their costs for 1995, and make a further reduction in their budgets of $30 million to reflect their failure to meet their cost reduction targets in 1994.

2.7 Ontario Hydro consider the difference between planned net income and the Statutory Debt Retirement to be its contingency against unforeseen costs or revenue shortfalls.

2.8 Ontario Hydro should make public its internal transfer pricing for services as part of its benchmarking activities.

2.9 Ontario Hydro establish a Working Group to initiate a corporate-wide benchmarking program designed specifically to develop benchmarks for performance measures that would be used as part of the rate review process from 1995 onward.

2.10 Ontario Hydro include in the Working Group representatives from major stakeholders, including AMPCO, the Canadian Federation of Independent Business and the Municipal Electric Association.

2.11 Ontario Hydro retain an external consultant with broad industry experience in designing and implementing benchmarking programs.

2.12 Ontario Hydro establish a schedule for the completion of the activities of the Working Group, which would see:

- an initial set of performance measures selected by October 31, 1994;

- benchmarks for these measures selected by December 31, 1994; and

- an assessment of performance measures against benchmarks by February 25, 1995.

CHAPTER 3 ONTARIO HYDRO ENTERPRISES

3.1 Ontario Hydro Enterprises should raise its capital from other public or private sources and all transactions between Ontario Hydro and OHE should be on an arms-length basis.

CHAPTER 4 ONTARIO HYDRO ELECTRICITY GROUP

4.1 Ontario Hydro move as quickly as possible to an internal transfer pricing scheme for electricity sales that is based on prices in an open competitive market.

4.2 Ontario Hydro reduce the 1995 revenue requirement by $24 million to reflect the experience that export profits are continuing at higher levels than forecast at the time of business planning.

4.3 Ontario Hydro introduce a coordinated benchmarking program for its transfer pricing scheme.

4.4 Ontario Hydro discontinue the Small Hydro Assessment and Retrofit Program ("SHARP Program") and seek private sector proposals for the future use of these facilities.

4.5 Ontario Hydro recognize that Bruce Heavy Water Plant "B" (BHWP "B") is only required for export customers and transfer the asset to Ontario Hydro Enterprises, including all benefits and costs derived from this plant.

4.6 Ontario Hydro reduce its 1995 revenue requirement by $19 million to account for the success in eliminating the surplus fossil fuel inventory.

4.7 Ontario Hydro introduce a coordinated benchmarking program for the business units in the Electricity Group.

CHAPTER 5 ENERGY SERVICES AND ENVIRONMENT GROUP

5.1 For 1995 Ontario Hydro should reduce its expenditures on energy management to 0.7% of total revenue plus the revenues from energy management services.

5.2 As part of Ontario Hydro's move to unbundle its rates, Ontario Hydro increase the proportion of energy management costs recovered by charges for energy management services to those receiving the benefits.

In the interim before energy management is on a commercial basis:

5.3 Ontario Hydro should discontinue providing programs to encourage energy efficiency in industrial customers facilities;

5.4 Ontario Hydro should recover costs for energy efficiency programs which are not recovered in energy efficiency revenues from the customer classes that benefit; and

5.5 Ontario Hydro should include the impact on electricity rates as one of the assessment criteria of the Energy Management function.

CHAPTER 6 RATES AND COST ALLOCATION

6.1 Ontario Hydro implement for 1995 and beyond, as proposed in Exhibit 6.1.10, the following rates:

- Short Term Incremental Power;
- Guaranteed Rates; and
- Real Time Pricing I and II.

6.2 Ontario Hydro continue the Surplus Power Rate for 1995 as proposed in Exhibit 6.1.10 with the addition of a buy-through option.

6.3 Ontario Hydro implement the Load Retention Rate for 1995 provided that a mechanism is introduced to allow the application of the rates to be accessible to the public.

6.4 Ontario Hydro should not enter into any further special and secret deals which are effectively load retention or Non-Utility Generation deferral.

6.5 If Ontario Hydro considers that special arrangements need to be made to encourage the deferral of Non-Utility Generation, they should prepare a proposal for a NUG deferral rate defining the terms and eligibility available to all customers who meet the criteria.

6.6 Ontario Hydro maintain the DDS arrangement for existing customers on the same basis as agreed in 1990.

6.7 If Ontario Hydro insists that changes are necessary for DDS discounts, Ontario Hydro must engage in effective consultation with customers to bring proposed changes to the next rate review process that will accommodate both customer and utility needs.

6.8 If the DDS is substantially changed, or replaced by a different service, existing customers should have the option of remaining on the existing DDS service with the current discount for at least 5 years following the decision to change the terms.

6.9 Ontario Hydro maintain the supplementary and replacement power arrangements as they currently exist and as customers have relied on in making their NUG capital investments.

6.10 If Ontario Hydro insists that changes are necessary for Back-up rates, Ontario Hydro must engage in effective consultation with customers to bring proposed changes to the next rate review process that will accommodate both customer and utility needs.

6.11 As a short term expedient to address the uncompetitive level of Ontario Hydro's rates, in setting 1995 rates it continue to include the proposed $17 million deficit in the Direct Customer account.

6.12 The Rural Rate Assistance should be eliminated as a charge on other electricity customers. If a subsidy is required for rural customers it should be provided out of Ontario government general revenues.

6.13 Ontario Hydro, in consultation with its customers, explore further opportunities for flexible and competitive rate choices.

6.14 Ontario Hydro develop an electricity load development rate rather than an economic development rate but only when justified by electricity business considerations.

CHAPTER 7 COSTS

7.1 Ontario Hydro be ordered to pay 100% of AMPCO's reasonably incurred costs arising out of HR 22 given AMPCO's significant financial contribution to the Hearing: specifically, with respect to the various Exhibits on Ontario Hydro's rates prepared and presented by AMPCO members.

EXECUTIVE SUMMARY OF BOARD STAFF

CHAPTER I: RESTRUCTURING

A. The Objectives of the Restructuring

Hydro's objectives in pursuing a fundamental financial and organizational restructuring are directed in three directions: first, to ensure low rate increases for the balance of the decade; second, to control costs and adopt financing strategies which will lead to improved financial performance; and third, to promote energy efficiency and sustainable development. The results of the Task Force are clearly focussed on the short-term rate and financial performance concerns and not on sustainable development. This focus is appropriate. There will be conflicts among the three objectives when actual decisions are made, therefore the focus must be on their implementation. For this reason, Hydro should provide a Restructuring Progress Report at its next hearing.

Recommendation
Hydro should prepare and file a Restructuring Progress Report at its next rate hearing.

B. Organizational Restructuring

1. Principles

Hydro's adoption of a business unit approach and the method of implementation are appropriate. If and when the industry becomes more competitive, there may well need to be further separation of the Grid from the generation units.

Recommendation
As part of its Restructuring Progress Report, Hydro should report on how any current or likely developments in the industry can be expected to affect the restructuring.

2. Process (Allocation of Assets, Equity and Debt to the Business Units)

In general, the allocation of assets is acceptable. However, if the need arises, Hydro should undertake a more thorough analysis of the particular assets. Also, the Corporate units should be allocated all assets which they require to perform their functions and for which they are accountable. The method of equity allocation does not recognize

the reliability of service from different assets and it starts at an arbitrary time. For the purpose of the business plans for 1995, the proposed equity allocation is acceptable, but the Hydro should review it. The debt allocation is also acceptable for 1995, but it should also be reviewed.

Recommendation
As part of the Restructuring Progress Report, Hydro should report on the outcome of its review of the allocation of assets, equity and debt and explain the reasons for any changes.

3. Authority and Accountability

The mechanisms in 1994 to ensure culture change (decentralization, transfer pricing, and performance pay) are preliminary at best and are not suitable as long-term measures for achieving the fundamental cultural change which is required. Given that Hydro is still in the early stages of entrenching the new culture, the situation will have to monitored closely by management and government to ensure that these efforts are successful.

Recommendation
As part of its Restructuring Progress Report, Hydro should report on the status of the mechanisms designed to enhance accountability and instill culture change, including benchmarking and re-engineering, pay for performance, and the transfer pricing system.

4. Capital Reductions

The reduction to the capital budget has provided a more reasonable and realistic forecast of system requirements.

Recommendation
As part of its Restructuring Progress Report, Hydro should provide evidence on its success in controlling its capital budget and its success in making further reductions.

5. Staff Reductions

The voluntary staff reduction programs were appropriate and the associated costs reasonable. It is unclear what skills are now lacking at Hydro, and until the work re-engineering and benchmarking efforts are more advanced it will not be possible to conclude whether the savings can be sustained or indeed whether further reductions are possible.

Recommendation
As part of its Restructuring Progress Report, Hydro should provide an analysis of the impact of staff reductions on corporate performance, including system reliability, customer satisfaction, and overtime.

6. Will the Reorganization Achieve the Restructuring Objectives

The objectives of the restructuring can be achieved, but it is not yet clear that they will be achieved. That assessment will have to be undertaken in future rate reviews.

7. Implications for Current Regulatory Process

The current role of the OEB with respect to Ontario Hydro is out of step with how Hydro is developing. The ultimate ownership of Hydro is an issue appropriately dealt with by government. However, on issues of competition and regulation, the OEB and the intervenors active in HR 22 have valuable expertise, and it would be in a forum such as an OEB hearing that these issues could most appropriately be addressed.

Recommendation
The Minister should consider providing a reference to the Ontario Energy Board to conduct a hearing into the issues of competition in the electricity industry and the appropriate form of regulation for Hydro. Such a public investigation would provide valuable input into the government's decision-making process.

C. Financial Restructuring

1. Account Consolidation

The account consolidation is appropriate.

2.&4. Debt Structure and Reduction

A move to a 60/40 debt equity ratio would be a beneficial change and should be seen as a directional goal not as a hard and fast target.

Recommendation
As part of its Restructuring Progress Report, Hydro should provide an update with regard to its debt reduction strategy.

3. Asset Writedowns

Hydro's move to reduce the value of assets which were determined to be overvalued on its balance sheet is appropriate. Specific submissions on several of the write-offs are included under the respective business units. The write-off of the restructuring costs, the write-off of the Pickering Payback Agreement and the writedown of the value Nuclear Fuel are also appropriate.

D. Aboriginal Issues

Hydro must address the dissatisfaction of these stakeholders, perhaps through a realignment of the authority and inter-corporate relationships of the Aboriginal and Northern Affairs Branch.

Recommendation

As part of its Restructuring Progress Report, Hydro should report on actions which have been taken to address issues of concern to Aboriginal people.

E. Restructuring - Future Considerations

The industry's future structure and Hydro's future ownership and structure are uncertain. Hydro and the industry are both in transition. The ultimate determination as to the appropriate structure for the industry (in terms of the amount of competition) will be a large factor in the ultimate determination of Hydro's structure and ownership. Given the pace of change to date, it is likely that the structure of the industry, and Hydro's place within it, will change substantially in 1995 or even before. There also may be changes to Hydro's ownership.

Board Staff has adopted the following approach in its argument and recommendations, and the Board may wish to consider a similar approach in its Report to the Minister. First, Staff has attempted to provide a progress report on the restructuring, developing recommendations for 1995 based on the assumption that the current industry structure will remain in place for 1995. In addition, Staff has given some limited consideration to matters beyond 1995, such as how Hydro should balance its various objectives, the appropriate organizational structure over time, what Hydro's position should be within the industry and what the regulatory implications are. It would not be helpful to the Minister if no recognition were given to how the restructuring will play out beyond 1995.

CHAPTER II: CORPORATE OVERVIEW

A. Corporate Business Plan for 1994-1996

1. Business Planning Principles

The move to a more commercial orientation as described in the strategic principles is appropriate, however it is too early to determine the reasonableness of all the new principles. The specific planning assumption for 1994-96 of a primary demand forecast of 135 TW.h is reasonable.

Recommendation

The strategic and business planning principles be adopted for 1995 and be subject to review for their appropriateness at Hydro's next hearing.

2. Budgeting and Planning Process

For the review process to have meaning and to be of value to the Minister and the public at large, this Board must have the most current and best available information before it. To make recommendations based on out of date and incorrect business plans substantially diminishes the value of the process. Board Staff recommends that the Board recommend to the Minister that Ontario Hydro be required to present up-to-date and accurate forecasts of its expected business plans for the test year.

With respect to the business planning process Corporate Finance should reduced role in the business unit planning process, in keeping with the Corporation's objective of business unit accountability.

Recommendation
Ontario Hydro should begin its planning and budgeting exercise early enough to allow the Board to review actual plans for the rate year before it.

3. Capital Budgeting Process

Hydro's plan to introduce capital evaluation tests is appropriate. The reduction in capital budget is a significant ongoing concern and Hydro should continue its restraint.

Recommendation
Hydro should report to the Board on its success in achieving the annual capital budget reductions and on the use of the capital evaluation tests.

4. Economic Forecasts and Outlook

The updated economic forecast numbers provided in response to Exhibit 2.6.4 should be accepted. Board Staff does have significant concern about the interest rate and Canadian/U.S exchange rate forecasts, however, given the current volatility, it is difficult to predict what, if any, change should be made to Hydro's forecast by the Board.

Recommendation
Hydro's updated economic outlook, Ex. 2.6.4, be accepted for the purpose of this rate review.

5. Corporate Functions and Overhead Allocation

Board Staff is concerned about the level of staff in the corporate units, which might tend to encourage micro-management of the business units by the corporate level. The use of contracting for corporate level services would provide a check on corporate unit growth and a measure of the corporate units' value.

C. Net Income Forecast

1. **Overall Corporate Target**
2. **Sensitivity to Change and Uncertainty**
3. **Corporate level Adjustments**
4. **Outstanding OM&A Adjustments**

Forecast net income be increased by $6 million due to the revised forecast of secondary sales resulting from the revised forecast for 1995, up to 4.6 TW.h.

There are numerous uncertainties for Hydro's forecast business plan and resultant net income. In deciding to support the 1995 rate increase of 1.4 percent and the resulting net income forecast of $734 million, Board Staff has considered the uncertainties and has concluded that on balance the probability is that Hydro can achieve the target. The net income will provide for a reasonable interest coverage ratio and a reduction in debt.

Board Staff does not support Hydro's proposition that inflation or 1.4 percent represents the market price or a market increase in prices for 1995. The 1.4 percent rate increase is appropriate as a signal to customers that Hydro is committed to holding its costs.

Recommendation

Hydro's proposed average rate increase of 1.4 percent be approved by the Board. Hydro's net income should be revised upwards by $19 million based on the increase in secondary sales of 0.5 TW.h and the increase in internal power consumption of 0.2 TW.h. Board Staff also recommends that Hydro use ant net income above the SDR level to reduce its debt.

D. Financing Strategy

1. Debt Level

Board Staff shares Hydro's concern regarding the debt level in 1995 and agrees that it does reduce the flexibility of the Corporation to deal with any financial changes. The reduction of the debt must be a priority, any additional net income above the SDR requirements should be committed to reducing debt.

2. Borrowing Strategy
3. Risk Management Strategy

The 15% target level of floating rate debt and the range of 5 to 20 percent is reasonable. Board Staff submits that in supporting the increased reliance on floating rate debt, it is necessary for Hydro to increase use its risk assessment and risk management tools.

4. Foreign Exchange Hedging Strategy

Board Staff submits that Ontario Hydro's foreign exchange strategy is flawed in that it relies heavily on the measurement of loss against forecast net income based on forecast not current exchange rates and not the actual dollar loss.

5. Financial Ratios

Board Staff supports the continued adoption of the interest coverage ratio as a test of financial soundness as a measure of the Corporation's ability to manage its debt and financing. However, given the Corporation's concentration on improving its financial flexibility, the decrease in borrowing and the move to a business orientation, a 1.2 to 1.3 interest coverage ratio may not be appropriate. Hydro should be considering changing its target interest coverage ratio to ensure it is in keeping with debt reduction and reduced borrowing. Ontario Hydro should provide its cash flow coverage ratio as a means to check Ontario Hydro's ability to meet all its current obligations.

Recommendation
Hydro should develop more appropriate financial ratio targets, based on its objective of reduced borrowing and moving to a more commercial debt/equity ratio.

6. Allocation of Financing Expenses to Units

Based on the current allocation of debt, on a pooled basis, the allocation of financing expenses is appropriate. The Corporation should consider developing risk-related returns for all units and allocate financing expenses based on those risks.

E. Depreciation

In general Board Staff supports the recommendations of the 1994 DRC report and recommends that they be implemented on January 1, 1995. Board Staff has specific concerns relating to the treatment of the Bruce heavy water plant that are addressed in part C of Chapter IV.

F. Accounting Policy Changes

1. NUG Costing

Ontario Hydro's proposed accounting treatment of NUG contracts is more appropriate and will provide matching of NUG power costs and the associated revenues from customers who make use of the NUG generated power.

2. Demand Management Expenditures

The proposed treatment of regional demand management expenditures is appropriate given the longer-term nature of these expenditures and matching benefits. Ontario Hydro should provide evidence on all capitalized expenditures, explaining how they met the criteria.

Recommendation
Hydro should provide evidence at its next hearing which explains how capitalized Demand Management expenditures were tested for meeting the criteria set out in the accounting policy.

3. Pension Expense

The changes to the Pension accounting are appropriate as it reflects current practice.

4. Other Accounting Policies

Board Staff has made submissions regarding the heavy water accounting treatment in Chapter IV, Section C. With respect to the change in calculation of the Interest Capitalization Rate, Board Staff submits that this change is reasonable.

G. Human Resources Plan

1. The Corporate Human Resources Function

The evidence indicates that the Human Resources function is currently as decentralized as possible, due to the percentage of employees who are represented by the two unions. This does limit the amount of authority individual business unit leaders will have in establishing and controlling labour costs. The area of Human Resources is one which should be considered for further benchmarking activities, in determining if further decentralization is possible.

Recommendation
As part of its benchmarking activities, Hydro should focus on the Human Resources function in order to optimize the level of decentralization and to ensure the appropriate balance between Corporate policy setting and business unit decision making.

2. Executive Compensation Policy

Hydro's proposed pay for performance plan attempts to provide the correct incentives to decision makers, by rewarding performance which is in the best interests of the Corporation, and which achieves the goals set by the Corporation. However, in the absence of specific targets, the Board cannot judge the appropriateness of the 1995 targets. However, the Board can and should recommend certain guidelines for Hydro to apply as it develops its targets.

Recommendation
Hydro should establish the performance targets for 1995 as part of the business planning process. These targets should emphasize financial performance.

Hydro should reduce base pay levels for executive staff by 5% in 1995 and the performance targets should be designed such that the performance pay increment will be greater than 5% only if the targets are exceeded.

3. PWU and Society Compensation Policy

Hydro must move closer to the community averages for all of its staff. However, it appears unlikely that parity will be achieved unless the communities continue to increase while Hydro's unionized workers are held constant. Board Staff also submits that Hydro should be aggressive in its negotiation of a performance pay system for PWU and Society personnel.

Recommendation
Hydro should institute a pay for performance system for all personnel and report to the Board at its next rate hearing as to its progress in this regard.

4. PWU/Management Relationship

Hydro has as yet been unsuccessful in achieving the needed culture change at the employee level. It remains to be seen whether PWU participation on the consolidated management committee and Board of Directors will lead to better decision-making, but there is the potential for success given that both the management and PWU leaders support the development of a customer-focused organization.

Recommendation
Hydro should reinstate regular meetings between its senior management and the executive of the PWU.

H. Corporate Performance Measures

Benchmarking is an important component of assessing corporate performance, the reasonableness of budgets, and can be a valuable tool for embedding the desired culture change at Hydro. There should be an overall corporate plan for this, as well as a central coordinating group to monitor and report on progress in each of the units.

There should be meaningful involvement of staff, and their representatives, in the determination of the areas to be benchmarked. Benchmarking can accomplish the same goals as the functional analysis which the PWU has recommended.

Recommendation
Hydro should formally adopt benchmarking as an ongoing activity. At the next rate hearing, Hydro should present its plan for benchmarking as well as report on results to date. The evidence should include the overall

plan, a description of how activities were identified for analysis, the results of that analysis, changes which have been instituted, and an assessment of the expected savings or quality improvements.

I. Load Forecast

The forecast of primary system demand of 135.6 TW.h for 1995 is reasonable, subject to the upward adjustment of 200 GW.h for the continued operation of the Bruce Heavy Water Plant. This forecast varies slightly from the Chairman's planning policy of assuming no load growth, it provides supporting evidence as to the reasonableness of that policy.

CHAPTER III: ONTARIO HYDRO ENTERPRISES

A. Ontario Hydro Technologies ("OHT")

Hydro should transform OHT from a cost centre to a profit centre, but it should not necessarily compete on exactly equal footing against external suppliers for contracts with other business units, because when contracts are awarded to OHT the net cost of the contract to the Corporation as a whole is less than the gross cost of the contract to the business unit that obtains the service. This effect occurs because the Corporation as a whole retains the profit margin that OHT builds into its bids.

Recommendation
The 2-year corporate rule restriction should impose an explicit adjustment on the weighing of bids such that the total cost of an external supplier is compared to OHT's total contract cost excluding the profit margin. Continuation of the restriction beyond two years should be considered at the next rates hearing.

There is a difference between OHT's internal revenue expectations and the R&D spending budgeted by other business units. This discrepancy has no real effect on the Corporation's actual net income, but creates an unnecessary negative variance from the budget.

Recommendation
OHT and the other business units should be required to reconcile their budgeted R&D revenues and expenditures, so that the budgets for internal R&D transactions do not have an impact on the budgeted net income of the Corporation as a whole.

B. Ontario Hydro International Inc. ("OHI")

OHI is a non-utility function of Ontario Hydro that is not conducive to regulation by this Board and represents a risk that perhaps should not be borne by the ratepayers. In the short term, however, OHI remains an operating unit of Hydro which carries risk which must be borne by electricity ratepayers in Ontario. These features make it accountable to the Ontario Energy Board through the Board's review of Hydro's rates.

Recommendations
The Minister should review the regulation and ownership of OHI.

Ontario Hydro should file a business plan and detailed financial statements for OHI at the next OEB hearing.

CHAPTER IV: ELECTRICITY GROUP

A. Grid System Business Unit

1. Load Forecast and the Consistent Energy Set for 1994/95

The revised forecast for secondary sales of 4.6 TW.h for 1995 is reasonable. The reduction in the target reserve level from 20 to 18 percent is appropriate for the current year, but Hydro should report to the Board on the excess capacity situation and its plans for any additional mothballing if warranted.

Recommendation
Hydro should report to the Board on its plans to deal with the excess generating capacity remaining after the decisions relating to the Capacity Surplus Review.

If Hydro is to continue adopting the no load growth scenario for 1996, it should be checked against the most up to date Short Term Load Forecast. To base the Consistent Energy Set upon an incorrect primary demand reduces the value of the CES as a planning tool.

2. Transfer Pricing - mechanics and costing

a) Principles and Objectives of Transfer Pricing

Board Staff agrees with the transfer pricing objective of reinforcing business or market-like behaviour. The transfer pricing scheme should explicitly include the principle of providing continuity in the provision of electrical power at the minimum cost which does not jeopardize system reliability and safety. Although the 1994 TPA introduced a means to allocate revenues among generating business units, Board Staff finds is not convinced that the 1994 TPA has optimized the dispatch of generation.

Recommendation
The transfer pricing scheme should have as a basic tenet the continuity of supply to the bulk customers. It should work to minimize generation costs, maintain system reliability and safety. It should also be simple to implement and transparent in its workings.

Hydro should not accept the asset valuation scheme outlined in the *RAAV* Report. There are alternatives to matching revenue streams derived from a transfer pricing scheme with the costs associated with asset allocation. Hydro has explored only a limited number of options in its attempt to reconcile transfer pricing unit business costs.

Recommendations

Board Staff recommends that asset revaluation not be undertaken at this time. Board Staff submits there is a close relationship between the appropriate valuation of assets, transfer pricing and the role of wheeling services. Therefore a review of asset values should be undertaken with due consideration given to all these aspects.

Therefore, Staff recommends that the Minister should refer to the Board a review of asset valuation, transfer pricing and wheeling within the context of the current regulatory structure, but with a view to the possibility of more open competition in the electricity market in Ontario.

b) The 1994 Transfer Pricing Agreement (TPA)

Energy payments under the TPA should not be calculated by applying the system marginal costs to the amount of energy taken. The use of system marginal costs as currently calculated by Ontario Hydro does not provide an appropriate basis on which to develop internal pricing for business units. The 1994 Balancing payment should not be part of the 1995 transfer pricing agreement. Cost related payments should be minimized to the greatest extent possible in future transfer pricing arrangements.

c) The 1995 Transfer Pricing Mechanism

The different forms of contract payments outlined for the 1995 transfer pricing scheme are a viable means of recognizing the generation mix available to dispatch. Ancillary services should be unbundled and reimbursement and cost of these services recovered through transfer pricing. Explicit transmission pricing should be part of the 1995 agreement. A "postage stamp" method of pricing is not appropriate as it does not recognizes constraints on the transmission facilities or transmission power loss.

Recommendation

Board Staff recommends that transmission services be explicitly recognized in the 1995 transfer pricing agreement. Reimbursement for the costs associated with transmission losses between a generator and a general point of consumption for that generator's power, or a theoretical centre of the system, should be included in the 1995 transfer pricing arrangements.

Because the LUEC curve described is constrained by the rate revenues, Board Staff is unclear whether this methodology will alleviate the cost based component of transfer pricing that was observable as the 1994 TPA balancing payment.

The spot market payment system may continue to include a system marginal cost component, but Board Staff is unable to unreservedly recommend the inclusion of the spot or bid market in the 1995 transfer pricing arrangements. System marginal cost should be included only if the spot market is limited to the contracting of peaking capacity or generation. Billing services are more properly located in ES&E.

Recommendation
Board Staff recommends that as part of the 1995 TPA system, billing services function should be allocated to the Environment Energy and Services Group.

The exclusion of a capital investment signal in the 1995 TPA is a severe limitation, as without some investment signal transfer pricing will be unable to adapt to changing demands in the electricity market.

Recommendation
The transfer pricing arrangements should recognize the necessity of business units receiving the appropriate signals so that they may make their own capital investment decisions.

Too little evidence has been given on transfer pricing to make a conclusive opinion on its viability. Since transfer pricing plays a pivotal role in the revenue stream of each business unit, the Board is at a serious disadvantage in determining the success or failure of the restructuring.

d) Wheeling, Differential Access and Open Access

In principle, the suspension of wheeling services is counter to the objectives of the restructuring goal to instill a competitive ethos amongst business units. The objectives of Hydro's restructuring are not irreconcilable with either some form of wheeling or open access. Board Staff believes that in order to provide commercial modality, transfer pricing should accommodate differential access even if such action is not planned by Ontario Hydro. Staff does not believe the *possibility* of stranded investment necessitates the absence of wheeling.

Recommendation
The Board should recommend that a comprehensive review of wheeling policy be undertaken by Ontario Hydro and its stakeholders and that this review be taken within the context of the transfer pricing agreement and other relevant restructuring objectives.

3. Business Plan 1994-1996 and Performance Measures

The Grid is in a better position than ES&E to determine whether NUG power is competitive with other generation sources.

Recommendation
The Grid should assume responsibility for negotiating future NUG contracts.

a) Transmission reliability

An acceptable level of transmission reliability is not at risk due to the restructuring. However, the 1990 Rehabilitation Plan should be revisited in light of the constraints facing the Grid business unit. The Grid should set a ceiling target for breakdown work as a percentage of total maintenance of no more than 35 percent and a CDI target no higher than 25 minutes.

There is no evidence of a relationship between the maintenance requirements of the transmission system and the 1994 Transfer Pricing Agreement. Rectification of this omission in the 1995 pricing arrangements is one method of recognizing a generating business unit's location costs on the system.

Recommendation

The Grid Business Unit should review its 1990 Rehabilitation Program in view of restructuring constraints. Recovery of maintenance and rehabilitation costs should be reflected in the transfer pricing scheme.

4. Revenues
5. Costs
6. Net Income

It is not feasible to make a recommendation regarding the Grid's 1995 net income due its dependence on the yet to be determined 1995 Transfer pricing Agreement.

B. Hydroelectric Business Unit

1. Business Plan 1994-1996, including performance measures

Board Staff supports the management model outlined by the Hydroelectric business unit. However, there is insufficient evidence at this time on which to judge the success or failure of the portfolio approach to asset management. Properly implemented, the portfolio management plan should offer an ability to maintain reliability and safety while controlling costs.

Recommendation

Board Staff recommends that the Hydroelectric business unit file a summary report of the results of its integrated facility assessment study to the Board at the next Hydro review.

The concept of contribution margin demonstrates the difficulty in adapting commercial management tools to a quasi-independent business unit. The absence of corporate overhead, financing charges and debt service costs in the decision making process does not contribute to a more efficient planning of generating capability within a portfolio strategy.

Board Staff does not accept that assets should be harvested if this is taken to mean trading off short term maintenance with the awareness that increased capital costs will be incurred in the future. Board Staff submits that the objective of sustainable development introduces an imperative to reconcile societal and private costs when evaluating an asset. Full cost accounting and transfer pricing could be utilized to meet this objective.

The restructuring has led to a greater demand for information on hydroelectric assets and that this demand must be managed in a manner that gives due consideration to those seeking information and the need to protect the value of an asset.

Board Staff believes that a study of the future viability of the 25 Hertz systems is warranted at this time.

Recommendation
The Hydroelectric Business Unit should include an economic analysis of the continued viability and/or complete conversion of the 25 Hertz System. Board Staff also recommends this study include an examination of compensating existing 25 Hertz customers.

2. Revenues

Until the final transfer pricing scheme has been adopted the magnitude of the revenues attracted by the HBU are uncertain. The large negative balancing payment penalizes the HBU's efforts to increase efficiencies in energy and capacity production.

3. Costs

Board Staff believes that the estimates for water rentals provided by the HBU are reasonable given the uncertainty surrounding the renewal of the Master Water Agreement. Given the current capacity surplus and fiscal constraints Ontario Hydro should not develop the Mattagami River and/or Niagara Falls sites at this time.

Recommendation
Ontario Hydro should not undertake to develop the Mattagami River site or further develop the Niagara Beck Station. Board Staff also recommends that cost outlays associated with the study of these developments be minimized.

4. Net Income

Because the HBU's net income results are highly dependent upon the transfer pricing arrangements and these arrangements are in a state of flux, there is no basis at this time on which to judge the reasonableness of achieving its net income targets.

C. Nuclear Business Unit

1. Business Plan

The success of OHN will be measured by the achievement of net income targets. The development of a long term disposal site for nuclear waste, particularly spent fuel bundles, is a necessary step if OHN's commitment to sustainable development is to have credibility.

Recommendation

OHN should develop a contingency plan for the disposal of nuclear waste and report on that plan to the Board at the next rate hearing.

Since both fossil and hydraulic have included debt/equity ratio as a performance target OHN should do the same.

2. Technical Problems

With the exception of Bruce unit #2, the remaining reactors appear to be in fair operating condition. However, the problems at Bruce suggest that OHN must remain vigilant in maintaining its assets if it is to achieve an adequate return over their life.

3. Outage Rates

4. Plant Capability and Capacity Factors

Board Staff accepts Hydro's estimated capability factor as reasonable.

5. Bruce A Unit #2 Shutdown

Given the excess capacity that exists, the decision to lay-up Bruce A unit #2 in September 1995 is appropriate. Staff submits that Hydro should consider the socioeconomic impacts on local communities directly in its analysis when considering plant downsizing or closures.

6. Heavy Water Production

At the end of 1993 the Bruce Heavy Water Plant ceased to be part of the provision for electricity in Ontario, but OHN's decision to maintain capacity at the BHWP is warranted in view of its committed contracts for heavy water.

It is important that the Corporation draw a clear distinction between its role as monopoly provider of electricity and its role as a seller of water. Board Staff believes that making a distinction between the ratepayers, or users of the system, and the Government of Ontario as owner of the Corporation is useful and more in keeping with the restructuring objectives of Ontario Hydro.

Staff submits the an arm's-length relationship between BHWP and OHN is critical in order to avoid the possibility of future subsidization of the heavy water facilities.

Recommendations

The Bruce Heavy Water Plant should be structured so as to have true arm's-length relationship with Ontario Hydro. Board Staff also recommends a cost allocation methodology for the heavy water facilities should be developed. The cost allocation study suggested by this recommendation should be subject to review of the Board.

The Minister should review the current ownership of the BHWP. The review should consider, among other possibilities, the privatization of the heavy water facilities.

Neither the transfer pricing nor average rate method of costing steam and electricity inputs in the production of heavy water meet the commercial standards set for the BHWP. The transfer pricing arrangements used for allocating revenues to generating units is not an appropriate method of pricing the electricity and steam inputs of the production of heavy water. All inputs to the production of heavy water, including the transformer service provided by the Grid, should be priced at the same rate charged to all other Hydro customers.

Recommendations

Ontario Hydro should charge the Bruce Heavy Water Plant for all the services it provides at a rate comparable to that charged to its other customers. Where this is not practical a market proxy cost should be included as part of the revised 1995 transfer pricing arrangements to price these inputs.

Export sales do pose a risk to Hydro's ratepayers, and the requirement of confidentiality inhibits the Board's ability to judge the reasonableness and riskiness of BHWP. In the present regulatory environment an accommodation must be made between the need for confidentiality and the Board's responsibility in reviewing Hydro.

Recommendation

Ontario Hydro should, in conjunction with its stakeholders, develop a means of providing the Board with the necessary information on which to judge the operations of the BHWP while recognizing the need for confidentiality in competing for export markets.

Board Staff does not accept OHN's argument that because the heavy water plant was built primarily to provide water to Hydro's nuclear plant and has completed that task it is now correct to write off the remaining undepreciated value.

Recommendation

Board Staff recommends that Ontario Hydro review its decision to charge the remaining undepreciated value of the Bruce Heavy Water Plant to heavy water produced in 1993.

7. **Revenues**
8. **Costs**
9. **Net Income**

Board Staff submits that the projected revenue and net income for 1995 are not useful in assessing the unit's performance because they are based upon the 1994 Transfer Pricing Agreement. The performance to date in 1994 has clearly been excellent, but these results should not be taken as evidence that OHN has metamorphosed into a profitable business unit.

The aggregate revenues from all secondary products should be reported and not remain embedded in the OM&A and fuel costs, because without this information, it is not possible to undertake a complete analysis of either the nuclear fuel costs, or the OM&A costs, or to determine whether the revenues received for these secondary services are adequate.

Recommendation
Hydro should report its secondary revenues separately on its financial statements.

10. **Decommissioning Cost**

If Bruce A unit #2 is to be retired after 16 years operation, the provision for its decommissioning alone will be inadequate.

Recommendation
OHN should undertake a decommissioning study and file it at the next rate hearing.

D. Fossil Business Unit

1. **Business Plan 1994-1996**

It is not appropriate to make any adjustment to Fossil's forecast production.

2. **Mothballing - Lennox and Lambton**

Board Staff believes the *Capital and Capacity Review* includes a number of weakness. Integrated resource planning, with consideration to environmental impacts, non-utility generation and demand management should be considered if the initial assessment indicates a need to mothball units for a period of over five years. To undertake anything less than a comprehensive study leaves Hydro open to costly future mistakes if units, such as those at Lambton, are required to be placed in service sooner than planned.

Several factors, including errors in forecasting and the cost penalties implied by an early return to service of Lambton, provide sufficient doubt as to the efficacy of mothballing Lambton units 1 and 2. A reversal of the decision to mothball the unit still providing power for Michigan sales offers an opportunity to save some of the sunk costs of rehabilitation.

Recommendation

The Fossil Business Unit should re-examine the decision to mothball Lambton units 1 & 2. This review should be made in light of the current outlook for 20 TW.h of electricity production in 1994; an IRP planning process; consideration of NUG generation and a comprehensive consideration of environmental impacts.

The $86 million in oil inventory at Lennox exceeds what this station will use within the next ten years. The current market for heavy fuel oil makes it unlikely that Fossil Business Unit will recover the book value of its oil inventory. In the short term sales of excess oil should continue. Over the longer term the FBU management should study the option of burning this fuel to produce power at this time, selling the oil or the oil inventory at its associated carrying costs.

Recommendation

The Fossil Business Unit undertake a cost-benefit analysis of the option to sell the excess Lennox oil inventory.

3. Environmental Impact - Air Emissions

Board Staff supports the Fossil business unit's commitment to new front end technologies.

4. Revenues
5. Costs
6. Net Income

The Fossil business unit has reasonably managed its excess coal inventory in a period of declining generation requirements and that no further reduction in coal inventory is required.

Staff submits that the extent to which Fossil's OM&A costs will decrease as a result of the mothballing is unclear. It is clear that the Corporate OM&A will be reduced due to the contract, but in Staff's submission it is ambiguous as to whether Fossil will recover the $15 million. It is not feasible to make any recommendation regarding the Fossil Business Unit's 1995 revenues or net income given the uncertainty surrounding the 1995 Transfer Pricing Agreement.

CHAPTER V: ENERGY SERVICES AND ENVIRONMENT GROUP ("ES&E")

A. Energy Services Planning and Strategy

No specific changes are recommended for ES&E's proposed 1995 gross budget. None of ES&E's energy efficiency targets are related to achieving the most societally beneficial amount of energy efficiency, because that amount is unknown. The societally optimal amount of energy efficiency can only be determined through an IRP process to establish the appropriate balance between Hydro's supply and demand options that will bring its capacity in line with the customer demand curve at least societal cost.

Recommendation
The Minister should consider giving a reference to the Ontario Energy Board to hold a hearing into an IRP framework for Ontario Hydro.

ES&E should back up its broad targets and performance measures with performance incentives for individual employees, and as much fiscal accountability as is possible for the business units, to maximize productivity. Hydro should address bottom line accountability in the 1995 transfer pricing agreement, at least in a preliminary way. Board Staff further submits that Energy Management's non-physical demand management assets may need to be written down by the Corporation.

For ES&E's retail, environment, rates and customer accounts functions, clear objectives and meaningful individual performance incentives are particularly important to act as a proxy for a bottom line profit incentive.

Recommendation
Hydro should strengthen the business drivers at an individual unit and employee level, by enhancing financial accountability.

B. Energy Management Programs

Demand management has long term benefits, while the surplus capacity is a relatively short term situation. Using avoided system costs to evaluate program cost-effectiveness explicitly accounts for the current low avoided costs. Hydro is appropriately making a distinction between its long-term and short-term demand management strategies in its allocation of resources to demand management under the current budgetary constraint. Until an IRP process suggests what the optimal allocation should be in this particular situation, it would be imprudent of Hydro to spend any more money than is necessary to keep energy management in a "holding pattern."

The current 1.5 overall cost/benefit ratio target is a prudent reaction to uncertainty in forecasting load impacts, measuring actual load impacts and placing a value on the avoided generation costs.

Recommendation
Hydro should replace its current four cents per kWh proxy of avoided cost with a better costing method as soon as possible.

Arriving at an accurate evaluation of externalities should be an iterative process: as more knowledge and experience is gained, the values should be refined periodically.

Recommendation
Hydro should incorporate the preliminary fossil fuel externality value of .4 cents/kWh into its cost-effectiveness testing until such time as this value can be replaced with a better estimate. The ten percent preferential adder should be abandoned as even a possible input into cost-effectiveness tests.

C. NUGs Strategy

Hydro should continue to support the development and implementation of technologies that use renewable forms of energy, even during a time of surplus capacity. A limited number of small renewable NUG contracts would have a negligible impact on Hydro's surplus that would be outweighed by the advantages to Hydro and its ratepayers in supporting the development of an industry that may be a significant supplier of power to the province in a future IRP setting.

Hydro should use an interim proxy value for externalities or a preferential adder for renewables beginning in January 1995 if it has not by that time determined what externality values should be applied to NUG purchases.

Regarding competitive bidding, Hydro should begin developing a process that assigns a positive value to diversity and to the environmental advantages of renewables, but remains flexible for possible revision. Engaging in a limited amount of contracting for renewables offers Hydro an unparalleled opportunity to test and refine a new competitive bidding process in a relatively less low risk context.

Recommendation
Hydro should develop a competitive bidding process for renewables and present it together with its renewable NUG procurement policy at the next rates hearing.

CHAPTER VI: RATES

A. Cost Allocation Methodology

With respect to the potential integration of the restructuring into the cost allocation methodology, there would be no net benefit from such an exercise. It may make sense, in Staff's submission, to have the same split of capacity and energy for purposes of cost allocation and transfer pricing.

Board Staff is concerned that Hydro is not planning for recovery of the accumulated Direct class deficit, but is relying on the fact that the cost allocation will recover the deficit and associated interest over time. It is unlikely that Hydro will be in a position to recover the deficit in a reasonable period due to its commitment to keep rate increases at inflation or less. Furthermore, there is the potential for increased deficits for Direct class customers as Ontario Hydro attempts to retain customers. This is clearly a reflection of Ontario Hydro's ability to overcharge captive customers.

Recommendation
Ontario Hydro should develop a plan for the recovery of the direct deficit and credit of the rural surplus within the next three years. In the event that Hydro does not develop such a plan, it should charge the Direct class its entire net income allocation instead of including the proposed Direct class deficit of $16.5 million in 1995 rates.

B. Proposed Rates

1. Rural Rate Assistance ("RRA")

The amount of rural rate assistance has been appropriately calculated.

2. Direct Customer Rates

The proposed firm rates for the Direct class are appropriate, subject to the recommendation regarding the deficit. The revised DDS discount is not being implemented fairly. Hydro must determine if it considers interruptible load a long term or a short term benefit to the system. If it is a long term benefit, then the discount should be based on a longer term analysis of avoided costs. Incremental avoided costs can change over time, but Hydro is really changing the rules of the game in the middle of contracts. Interruptible contracts represent long term benefits to the system and the discount should be based on that.

Recommendation
Ontario Hydro should not change the discount for DDS unless it has consulted with DDS customers and determined that interruptible power does not provide any long term benefit to the system.

3. Municipal Utility Rates

Board Staff support Hydro's proposal for new MEU rates as of January 1, 1995, on the basis that the increase in rates is necessary to ensure the Corporation's net income target is reached.

C. Optional/Experimental Rates

1. Real Time Pricing ("RTP")

RTP is an improvement over TOU rates because it tracks costs better at the margin, while still recovering embedded costs. RTP essentially is a hybrid of average and marginal cost pricing, with the advantages of both. One potential drawback is the instability of the revenue collection, because it collects a high portion of its revenues at the margin during peak periods. However, this is a reflection of the fact that a high portion of cost is incurred at peak, and with more experience Hydro should become better at forecasting the load shifting effects and setting the rate more accurately to recover the revenue requirement.

Recommendation

Hydro should study the results of the Real Time Pricing experiment with a view to making RTP mandatory for its direct customers, and present the conclusions of the study at the next rates hearing.

Staff has some reservations about the element of customization, as it may result in one customer (customer X) under RTP II who began the experiment with a certain volume and load pattern, paying a different price for that consumption than another customer who started out with different load characteristics but through load shifting under RTP II has ended up with the identical load as customer X.

Recommendation

The Board should endorse RTP II on an experimental basis as proposed, but with the qualification that the customization of the access charge requires further review if Hydro proposes to proceed beyond 1995 with this rate option.

2. Guaranteed Rates

It would be inappropriate for this Board to recommend a rate to the Minister based on cost predictions that have not yet been tested by the Board. A rate commitment that extends beyond the period for which the costs have been tested imposes an inappropriate risk on Ontario Hydro's ratepayers. In addition, the one percent premium over firm service may not meet the power at cost requirement of the PCA.

Recommendation

The Board should not support implementation of the proposed guaranteed rates.

3. Marginal Cost Based Experimental/Optional Rate Proposals

The Board, in determining whether Ontario Hydro's rates are just and reasonable (and in the public interest), must consider them in relation to established ratemaking principles. In reviewing the surplus power rate, short term incremental power, load retention rate and special contracts, the Board should give particular attention to the

principles of power at cost, transparency, and no undue discrimination. "Fairness" is comprised of all these criteria as well as other principles. The Board, in determining what rate proposals are in the public interest, must decide how much of a compromise is just and reasonable. In Board Staff's opinion, Hydro has not given adequate consideration to the fairness implications of implementing even limited marginal cost based rates.

Hydro's recent reinterpretation of the PCA to accommodate average cost pricing for some customers and marginal cost pricing for others should not be supported by this Board. Regardless of whether the eligible large customers would or would not be taking that load if they did not receive the lower rate, the fact remains that on the marginal cost based rates they would take power from Hydro without paying for some part of the cost that was incurred in making that load available to them. Hydro has given inadequate treatment to the cost allocation effects of marginal cost pricing. A proposal for a major change such as this should be accompanied by a study of the cost allocation implications of these rates.

Board Staff submits that the customers of a single electric utility should be charged electricity rates that are based on the cost of the type of service provided, not according to what influence they can exert over the utility.

Board Staff recognizes that competitive load retention rates may be in the public interest under very specific circumstances. The Board would have to have enough information to determine how the competitive rate relates to ratemaking principles and the consequences of recommending or opposing it, in order to decide if, on balance, it was in the public interest.

"Market responsive" and "competitive" rates as interpreted by Ontario Hydro are a form of discriminatory pricing. Hydro proposes to charge more to the customers over which it has a monopoly than to the customers for which Hydro must compete in some way. Board Staff rejects Hydro's suggestion that it is appropriate to give less weight to customer equity issues in order to achieve its new business objectives. Board Staff submits that ratemaking principles should not be sacrificed lightly to expediency, and recommends that the Board give them much more weight than Hydro has done in designing its marginal cost based rates.

b. Surplus Power Rate

There are two distinct ways to assess the surplus power rate: as a tool for selling Hydro's surplus power, and as a rate option that increases the menu of service choices. Board Staff could not accept this rate on the former basis, but believes that it has merit on the latter basis.

Board Staff has several concerns about the transparency and discriminatory effects of the rate with regard to individual customer baselines determining eligibility for the surplus power rate. It is apparent that decisions on setting baselines are subjective and often arbitrary, with high potential for competitive distortions.

However, with the surplus power rate, Hydro is in fact providing "a different class of power". The surplus power rate represents a level of service that is less reliable than any of Hydro's other services and is therefore appropriately less expensive than any of the other rates. The level of reliability is at least roughly traded off by the customer

against the level of discount. It is not evident that determining the baseline for each individual customer is more appropriate than a generic minimum firm service volume requirement. Staff does not support a "buy-through" option for surplus power at this time.

Recommendation
The Board should support the surplus power rate but urge Hydro to devise a generic minimum firm service volume requirement for eligibility instead of a customized baseline.

c. Short Term Incremental Power Program

The proposed short term incremental power rate option has all the undesirable elements of surplus power without a clear justification. The only service distinction between short term incremental power service and firm service is that short term incremental power has an 80 percent minimum bill provision, compared to 20 percent for firm service.

Short term incremental power customers, much more than surplus power customers, have every incentive to negotiate their baseline down as far as Hydro can be pushed. Excessive room for negotiation and subjective decision-making can lead to undue discrimination. The evidence does not support Hydro's position that free ridership will be insignificant in practice. The potential for stimulating incremental load is very small under this short term rate, which magnifies the downside risk of free riders overwhelming any positive financial impacts. In summary, Board Staff submits that the rate will not recover costs, the eligibility criteria are non-transparent, and there is high potential for undue discrimination.

Recommendation
The Board should oppose the proposed short term incremental power program.

d. Load Retention Rate

The Cornwall/Niagara load retention rate is such a limited application rate that it probably cannot have very large positive or negative impacts, but it does fall short of the ratemaking principles highlighted above. It will create competitive differences between customers on Hydro's system. Hydro's competitive rate will add to that advantage because it will have to be below the level which makes the customer indifferent between remaining on Hydro's system and leaving it.

However, the proposed Cornwall/Niagara load retention rate is a competitive customer retention situation in which the trade-offs that the Board must make in determining the public interest are clear. The customers to whom the Cornwall/Niagara load retention rate is aimed are in the very unusual situation of being able to leave the system with virtually a flick of a switch. In this situation, the potential load loss weighs heavily against the competitive implications of the rate.

Recommendation

The Board should support the load retention rate strictly as proposed, with the caution that any expansion or alteration of the rate would necessitate a new review.

e. Special Contracts

Hydro is a public utility and a monopoly supplier. It is wholly inappropriate for Hydro to sign contracts that effectively give a rate discount to certain of its customers, without any public regulatory oversight. The principles of ratemaking apply equally to special contracts as to other rate initiatives. Government approval does not represent the same level of transparency and public input as the full, open public review process that occurs through a rates hearing.

Recommendation

The government should not permit Hydro to enter into any more special contracts without prior public review by the Ontario Energy Board.

Hydro acted on the Suncor and Dow consortium cogeneration threats with very little analysis to determine the credibility of the threats or the societal benefit of a competitive load retention quasi-rate initiative.

Recommendation

Hydro should develop a consistent set of criteria for determining the best response to competitive threats from off-system alternatives, taking into account public interest considerations, and base any future customer/load retention rate or quasi-rate initiatives on these criteria.

With respect to the suggestion that the Bruce Energy Centre be given a special economic development rate, it is premature for any consideration to be given to such a special rate until such time as the companies individually or as a group qualify as large direct customers of Ontario Hydro.

Recommendation

The government should weigh the implications of an amendment to the Power Corporation Act which would allow small customers to receive large customer status on Hydro's system under certain circumstances.

6. Back-up Power Rates

The back-up power rate proposal is inappropriate and should be rejected. Hydro has not justified the rate on a cost basis and Hydro's own working papers indicate that the rate is based on a number of assumptions which were challenged by other parties. However, there should be a uniform rate for customers who wish to avail themselves of back-up services. Hydro should not be permitted to introduce a new back-up power rate until it has reviewed the costs associated with providing the service and can provide a detailed cost study supporting the proposed charges. While Hydro is preparing the cost study it should consult the affected customers in regard to the justification for the

new rate. There is merit in a non-firm back-up power rate. In the interim, Hydro should continue the current supplementary and replacement rates.

Board Staff is concerned that Hydro has conceived the back-up power rate as a disincentive to self-generation. In Board Staff's submission, the rate should be based on costs the utility incurs in providing the service and nothing else.

Recommendation
Ontario Hydro should maintain the current supplementary and replacement power rates until it completes a thorough cost study of its proposed back-up power rate and conducts customer consultation with the affected customers.

D. Rate Restructuring Initiatives

There are contradictions within ES&E's mandate, and while it may be possible to reconcile them, it cannot be done by manipulating rates as a "key tactic" in the implementation of ES&E's four objectives of the Energy Services Strategic Direction. Rates should more closely reflect costs in order to encourage the wise use of resources. Rates should either be abandoned as a key tactic in the attainment of strategic objectives, or the objectives of the strategic direction should themselves be revised.

Eligibility for discount rates should not be dependent on a customer's energy efficiency commitment. The greatest service that Hydro can offer its customers through rates is a menu of options to meet the diverse service needs of different types of customers, with rates that send the customer an accurate price signal of the cost of power at the margin, and have a fixed average cost component that ensures recovery of the revenue requirement. Board Staff also recommends that Hydro make a greater effort to investigate ways of improving small customer metering.

Hydro's justification of discount rate options to retain customers is based on a short term period of low marginal costs. As the surplus capacity is eroded over the long run, surplus capacity will no longer be available to prop up competitive/flexible rates. Hydro's best sustainable strategy for customer retention is to continue working to reduce its overall cost structure. At present, Hydro is trying to implement ad hoc competitive rates and special contracts with undue haste and insufficient substantiation. Until Hydro can present such analysis to the Board in support of its case, Hydro should make no further attempts to create special load retention rates.

Hydro will have difficulty achieving its goal of sustainable development by offering low short-term rates to some of its industrial customers, due to the relatively small impact that electricity rates have on total production costs. The best way to use electricity rates to ensure appropriate economic development is to send an accurate long term price signal. Board Staff further submits that some of Hydro's rate restructuring initiatives to support its strategic direction overstep the bounds of Hydro's jurisdiction and cross into government policy areas.

Recommendations

Hydro should pursue further unbundling of rates and expanding its menu of rates. These rates should be designed to track system marginal costs but also include an embedded cost component to recover the revenue requirement.

Hydro should not use marginal cost based discount rates (ie, "market responsive" or "competitive" rates) to try to attain its strategic objectives.

EXECUTIVE SUMMARY OF THE BRUCE ENERGY CENTRE LIMITED AND CANADIAN AGRA CORPORATION

BACKGROUND

Canadian AGRA Corporation and its industrial development arm, the Bruce Energy Centre Limited, ("these Intervenors") are the principal developers of the Bruce Energy Centre, an industrial park located adjacent to Ontario Hydro's Bruce Nuclear Power Development. The purposes of this intervention are to feature the Bruce Energy Centre as a leading example of sustainable development in Ontario, and hence as a vehicle for Ontario Hydro to fulfil its mission statement, and to examine the rate structures that are appropriate to facilitate this kind of development in Ontario today and in the future and to ensure that Ontario remains competitive with other jurisdictions in that regard.

The Bruce Energy Centre was conceived in the mid-1970s as a partnership among Ontario Hydro, governments and the private sector. It involved the assembly of land as an industrial park adjacent to the Bruce Nuclear facility, particularly for the use of industries involved in sustainable processes, and using the combination of both steam and electrical energy available from that facility in an efficient and environmentally responsible manner. There are six existing industries within the complex, all of which use both electrical and steam energy supplied by Hydro. In the aggregate, they are a significant energy customer, but none individually uses enough electrical energy to qualify for Hydro's "Direct Customer" rate. As a result of a recent agreement with Hydro on steam supply and pricing, several new industrial developments are poised to proceed within the complex, and some of these would qualify a "Direct Customers".

The founding principles for energy supply which were offered by Ontario Hydro to promote this project, and which were prerequisite to its development, were: (a) an abundant long term supply of heat energy (steam); (b) steam prices estimated and advertised to be "up to 65% less than steam produced from fossil fuels; and (c) a 5-year incentive electrical rate, and rates competitive with other jurisdictions thereafter.

Current electrical rates charged to industries within the Bruce Energy Centre are Ontario Hydro's "Rural Rates". At 7.5 to 7.9 cents per Kw., these rates are not competitive with rates in other jurisdictions. For example, Canadian AGRA Corporation has made a proposal to the Province of Manitoba for a similar development, which takes advantage of prevailing electrical rates in that jurisdiction of approximately 4 cents.

ARGUMENT

These Intervenors fully support Ontario Hydro's mission statement and, in particular, its commitment to sustainable development. Concrete initiatives to achieve this mission must not be made to await the refinement of detailed criteria. Sustainable development is a well identified concept, and progress toward its achievement does not require a comprehensive master plan. It is submitted that sustainable developments, from the perspective of Ontario Hydro, are those that include any one or more of the following:

(a) improvements in Ontario Hydro's own efficiencies in energy use and generation;

(b) amelioration of the environmental impacts of Ontario Hydro's own infrastructure, operating processes, and other activities;

(c) improvements in the efficiencies in energy use by Ontario Hydro's customers, including in particular opportunities for energy co-generation; and

(d) amelioration of the environmental impacts of the infrastructure, operating processes, and other activities of Ontario Hydro's customers.

These Intervenors support and commend to Ontario Hydro and to the Board an interim, incremental strategy to achieve this mission, which employs strategic partnerships between Ontario Hydro and industries, communities and their governments which are involved in development projects based upon principles of sustainability. The overwhelming consensus in the evidence, including that of Ontario Hydro's witnesses, is that the ecopark concept, as demonstrated by the existing and proposed development at the Bruce Energy Centre, makes this project a leading example of sustainable industrial development, closely allied to and interdependent with an energy generating facility, which holds the potential to optimize the energy efficiency and the environmental impacts of both Ontario Hydro's operations, and those of its customer industries within the park. As such, this project currently achieves, and has the potential for fuller achievement of, all aspects of the concept of sustainable development.

The argument of these Intervenors develops the case for recognizing sustainable energy developments, and particularly ecopark developments such as the Bruce Energy Centre, as a special category of energy customers for rate purposes.

This argument applies Ontario Hydro's own stated principles for pricing electrical and steam energy. Applying these principles, it is suggested that customers in this category should qualify for an electrical energy rate below the current direct customer rate of approximately 5.4 cents per Kw. It is argued that the unique benefits of this kind of development, not only to Ontario Hydro but also to the broader society in Ontario, justify the establishment of such a special rate category. Moreover, it is argued that the implementation of such a rate structure is urgently required in order to preserve Ontario's ability to compete with other jurisdictions for this kind of sustainable industrial development.

The features of developments in this category which may be relevant to its definition and to the determination of appropriate rates for customers in this category can be grouped as follows:

(a) they involve significant industrial development based upon principles of sustainability;

(b) they involve, individually or in the aggregate, substantial energy consumption, whether in the form of electricity or steam or both;

(c) they offer significant benefits to Ontario Hydro, which include opportunities to optimize Ontario Hydro's own energy efficiency, for example relating to their proximity to an energy generating facility, or their inclusion of "dual-energy customers" who purchase and use both electrical and steam energy.

In summary, these intervenors submit that Ontario Hydro's proposed rate restructuring initiative is deficient to the extent that it omits any initiative that is targeted to projects founded upon principles of sustainable development. They outline a proposal for a new rate category to address this omission, and to enable Ontario Hydro to begin to achieve the broader objectives of its new mission statement in the immediate short term. The main elements of that proposal are as follows:

(a) the principles used to establish the applicable rates within the category should be based upon full reasonable cost recovery and competitiveness with other jurisdictions;

(b) since the establishment of a special rate category does not imply or involve a subsidy from other customers of Ontario Hydro, it should not be structured as a form of "rate relief" or "rate assistance" to be applied to otherwise applicable rates charged by Ontario Hydro to its customers;

(c) the direct customer rate provides the most appropriate structural model for the proposed special rate category, but that model requires adaptation to ensure that the total energy use of the development (both steam and electrical) is taken into account, and that the same rates are applied to all customers within an integrated development that is comprised interlinked enterprises, regardless of their individual energy use;

(d) the proposed rate category is intended to be a permanent addition to Ontario Hydro's rate structures, generally available to all eligible customers without regard to their financial need, rather than an optional or experimental rate initiative, although there may be scope for experimental/optional variations within the category; and

(e) the rates applied to eligible projects should be equal to or, where appropriate, lower than the current direct customer rate charged by Ontario Hydro to its major customers.

The existing and planned development at the Bruce Energy Centre, which is acknowledged in the evidence to be a leading example of sustainable development and consistent with Ontario Hydro's stated mission, is used to illustrate that this proposal would support an electrical energy rate lower than Ontario Hydro's proposed direct customer rate

in 1995, consistent with the Corporation's own stated principles of full reasonable cost recovery and competitiveness with other jurisdictions. These Intervenors submit that considerations of competitiveness, in particular, make it urgent that this Board should recommend, and that Ontario Hydro should implement as part of its 1995 rate restructuring initiative, a new rate category on these general lines, which specifically targets sustainable development projects in Ontario.

CONCLUSION

These Intervenors submit that this Board should recommend to the Minister and to Ontario Hydro's Board that, in order to advance the broader aspects of its new mission statement in the shorter term, Ontario Hydro implement, as part of its 1995 rate proposal, a special rate category targeted to projects that are founded upon the principles of sustainable development, and which involve an element of partnership between the utility, private industry, and communities and governments within Ontario.

EXECUTIVE SUMMARY OF
THE BUREAU OF COMPETITION

1. The Director's interest in this hearing relates to the competition implications of the issues under consideration. The Director's final argument focuses primarily on competition-related matters pertaining to the organizational restructuring at Ontario Hydro (Issue I.B)- It also comments in passing on the objectives of the restructuring (Issue I-A), Ontario Hydro's policy on transfer pricing (Issue II. B), and the economic impact of Hydro's proposed experimental/optional rates for 1995 (Issue VI.C).

Issue I.A The Objectives of the Restructuring

2. Ontario Hydro has outlined a number of objectives of the restructuring that it has undertaken to date. These objectives relate to efficiency, rate levels, economic development, environmental protection and other matters. The Director generally supports these objectives, and notes that they are broadly consistent with those of competition policy. He further concurs with the statements made by Mr. Maurice Strong (Chairman and Chief Executive Officer of Ontario Hydro) during the hearing regarding the compatibility of economic efficiency objectives and sustainable development.

Issue I.B Organizational Restructuring

3. As indicated by the various exhibits of Ontario Hydro and the testimony of Hydro personnel, the organization recognizes that competition is an important instrument for achieving its mission and objectives. This is supported by evidence and testimony provided during the hearing including Mr. Strong's statement that "Ontario Hydro must move into a much more open, competitive, open-access type of marketplace." The Director strongly supports this view and notes that a similar re-orientation has taken place in electric utilities in numerous jurisdictions outside of Canada.

4. The Director, therefore, recommends that the Ontario Energy Board ("the Board") support financial and/or organizational restructuring by Ontario Hydro that, directly or indirectly, is likely to facilitate or enhance competition in the Ontario electricity sector. In this regard, the Director views the reorganization of Ontario Hydro into distinct business units as a step in the right direction.

5. The Director notes, however, that the restructuring to date represents only one step in an ongoing process aimed at achieving Ontario Hydro's mission and goals. In assessing the restructuring, the Director encourages the Board

to take into consideration the basic conditions for effective competition that were put forward by Dr. Edward Kahn, the expert witness for the Director, in his evidence and testimony.

6. The Director's Argument notes two features of the restructuring that may be disadvantageous from the standpoint of promoting competition: (i) the inclusion of the grid system and Hydro's generating business units in the Electricity Group; and (ii) the structure of the relations between Ontario Hydro and non-utility generators (NUGs). These may tend to hinder the development of effective competition between Hydro's generating units and NUGs. To remedy this concern, the Director urges the Board to support the adoption of certain changes in the organizational structure of Hydro, before further substantial capacity conditions are required. These include: (i) the administrative separation of the grid system from the generating business units; and (ii) the establishment of one responsibility center for assessing internal and external bids, preferably within a separate grid system.

7. The Director also notes the concern, expressed by other parties in the hearing, that the limits imposed by the current regulatory framework on the restructuring to date and other Ontario Hydro initiatives may ultimately prevent the achievement of Hydro's mission and goals. The Director, accordingly, recommends that the Board support a thorough review of the regulatory framework for the electricity industry in Ontario.

Issue II.B Policy on Transfer Pricing

8. The Director believes that the basic features of the proposed 1995 transfer pricing mechanism generally represent a positive step toward the establishment of more market-like conditions for the supply of electricity to the grid. The Director notes, however, that the transfer pricing mechanism for 1995 and beyond, while recognized by Hydro as a key instrument for instilling market-place disciplines, is still in a developmental stage (See the testimony of Hydro's grid system panel, especially pp. 2158-61).

9. The Director recommends that the Board support the basic features of the 1995 transfer pricing mechanism. He also urges the Board to include a recommendation in its report for a public review of progress under the 1995 mechanism to be conducted by the Board or a similarly qualified authority.

Issue VI.C Experimental/Optional Rates

10. Another important matter addressed in the hearing that raises possible competition issues is Ontario Hydro's proposed experimental/optional rates for 1995. In general, the Director supports rate initiatives that are intended to promote efficiency by bringing the rates charged to customers more closely into line with the costs of supply. At the same time, the Director agrees with the need for careful consideration by the Board of possible anti-competitive effects of the new rates and rate structures. The Director also considers that the growing complexity of rate structures reinforces the need for a thorough review of the regulatory framework of the electricity industry in Ontario.

EXECUTIVE SUMMARY OF
THE CONSUMERS' ASSOCIATION OF CANADA

I INTRODUCTION

1. The Consumers' Association of Canada (CAC) will make submissions on the following substantive issues:

   (a) The objectives of the restructuring;

   (b) The implications of the restructuring, and of the rate proposals, for the current regulatory process.

   (c) The proposals for general rates for 1995;

   (d) The proposals for specialty rates for 1995;

   (e) The proposals for consultative processes;

II THE RESTRUCTURING

(A) The Objectives of the Restructuring

2. CAC submits that Ontario Hydro's (OH) efforts to reduce the cost of producing and delivering electricity are consistent with its obligations under the Power Corporation Act (the Act).

3. CAC supports OH's corporate initiatives to restructure, undertake significant cost reductions, implement cost containment strategies and to change its financial strategies as being in the short and long term interests of residential consumers of electric power. A critical issue will be whether those initiatives can be sustained over time and whether OH can continue to meet its obligations under the Act.

4. CAC supports OH's new business unit model to the extent that it leads to reductions in costs and to the more effective delivery of electric power.

5. CAC submits that the Energy Board (OEB) has no way of knowing under this new regime whether OH is going to be efficiently operated.

6. CAC submits that it is therefore imperative that the OEB require OH to introduce transparent internal evaluation mechanisms which will help the OEB and OH management determine whether OH's operations are efficient and cost effective. CAC submits that benchmarking is one such mechanism.

7. CAC submits the OEB, in its Report, should recommend that OH be required to adopt benchmarking mechanisms. CAC also submits the OEB should recommend that OH be required to report, as part of its annual reviews, on the benchmarking standards it has adopted and on its excessive meeting of standards.

8. CAC recommends that benchmarking should be used to further define and quantify compensation differentials between OH and relevant communities and demonstrate steps have been undertaken to correct this situation in HR 23.

9. CAC submits the OEB should recommend that OH be required to undertake investigation of other management techniques which would aide OH's management and the OEB in evaluating the cost effectiveness of OH's operation.

10. CAC urges the OEB to recommend in its report the standards filing requirements be established OH. This will provide the OEB with the information it requires in order to assess OH's costs, its performance and ultimately the appropriate rate levels. The formalized set of filing requirements will also expedite the rate review process.

11. CAC submits that the OEB cannot test whether or not OH's recent initiatives will be carried out in a manner consistent with the public interest. The true test will be OH's ability to adhere to cost containment strategies while maintaining the projected rate levels and providing safe, reliable electricity to its customers.

12. CAC has no objection to OH's stated goal of becoming more competitive with other sources of energy to the extent that that goal may allow OH to become a supplier of lower cost electricity.

13. CAC does have concerns about OH's stated goal of enhancing the competitiveness of its customers and of supporting the competitiveness of Ontario as a whole.

14. CAC submits that in pursuing those objectives raises the possibility that OH may abandon its obligation to provide electricity at equitable rates for its customers. Those objectives will, CAC submits, necessarily require OH to offer targeted rates to particular classes of customers and to individual members of particular classes. OH's doing so, CAC submits, will almost inevitably result in there being discrimination among classes of customers and among members of individual classes.

15. CAC submits that the goal of supporting the competitiveness of Ontario business as a whole is properly a matter of government policy.

16. CAC submits that, if the OEB is to accept the stated goals of enhancing the competitiveness of OH's customers in supporting the competitiveness of Ontario as a whole, it should do so only on the condition that there be changes to the regulatory system to allow strict regulatory supervision of OH's activities.

17. CAC supports, as a general policy matter, pursuit of the goals of sustainable development. CAC submits, however, that OH's pursuit of sustainable development must be consistent with its obligations to provide electricity to Ontario consumers at reasonable and equitable rates.

18. CAC supports OH's pursuit of those initiatives identified in the Report of the Task Force on Sustainable Development that can be achieved at little or no cost.

19. CAC submits that there should be a stakeholder consultation process for the development of the framework for Integrated Resource Planning (IRP) and for the implementation of full-cost accounting.

20. CAC also supports the recommendation of the Task Force on Sustainable Development seeking an examination of the trade offs involved in the conflict between the goals to achieve a steady increase in energy efficiencies and policies to maintain a freeze on rates, and the impacts these trade offs may have on the regulatory structure and stakeholders.

21. CAC submits that OH should be required to provide to the OEB an update on all costs associated with the implementation of the recommendations of the Task Force on Sustainable Development.

(B) Organizational Restructuring

(1) The Implications of Restructuring on Current Regulatory Processes

22. At present, regulatory constraints on OH have taken three broad forms. The first are the obligations set out in the Act, including the obligation that OH must obtain cabinet approval for certain of its activities. The second is the periodic review of rates by the OEB. The third is the occasional review by the OEB of matters specifically referred to by the MOEE.

23. It is submitted that, under the present regulatory processes, the following matters reviewed in HR 22 would not come before the OEB:

(a) whether OH had adopted internal benchmarking standards and whether the application of those standards have been effective;

(b) whether the goals of the restructuring had been met;

(c) whether, and to what effect, OH had pursued the goals of sustainable development, including IRP and full-cost accounting.

24. It is submitted that some of the issues in HR 22 might come before the OEB, but only to the extent that they were related to rates. Those matters might include the following:

(a) success of OH's efforts at cost containment, including staff reductions;

(b) the effect of its overall rate proposals in 1995;

(c) the effect of its specialty rate proposals for 1995.

25. CAC submits, therefore, that the OEB in its report should recommend that there be changes to the regulatory process as a precondition to the approval of some of OH's specialty rates.

26. There is no doubt that there are significant changes in the electricity industry and that, therefore, a wholesale re-thinking of the form and content of the appropriate regulatory framework is required. The form and content of any new regulatory process is beyond the scope of HR 22. CAC submits, however, that the OEB should in its report to the MOEE recommend a public forum in which stakeholders may make submissions as to the appropriate form and content of the new regulatory processes.

27. It is submitted that the existing regulatory processes are inadequate to ensure that OH's restructuring, and the rate proposals which flow from it, are consistent with the Act and in the public interest. It is submitted that the OEB should recommend that there be a thorough review of the adequacy of the existing regulatory processes, including the adequacy of the controls in the Act.

III CORPORATE OVERVIEW

28. CAC submits that the OEB must be satisfied that there is sufficient evidence to allow it to report to the Minister of the Environment and Energy (MOEE) that the general rates proposed for 1995 are reasonable. CAC submits that there is insufficient evidence to allow the OEB to do that. CAC also submits that there is insufficient evidence to allow the OEB to conclude that the proposed rate levels are compatible with OHs maintaining its financial integrity, or that the promised rate levels can be maintained over time.

29. The absence of sufficient evidence to allow the OEB to report to the MOEE with the rates proposed for 1995 or a reasonable, of the OEB has three options, as follows:

(a) a recommendation that there be no change in the rates for 1995;

(b) a recommendation as to what the appropriate rate levels ought to be for 1995;

(c) an acceptance of OHs proposed rate levels.

30. CAC submits that the OEB should not recommend a zero rate increase for 1995 because it would not allow OH the flexibility to absorb the effect of increases in interest rates.

31. CAC submits that there is insufficient evidence before the OEB to allow it to make any independent recommendation as the appropriate rate levels for 1995.

32. CAC submits the OEB should recommend to the MOEE that OH proposed general rates be accepted. The OEB should do so, CAC submits, in order to provide OH with some protection in the event that interest rates rise significantly. In doing so, however, CAC submits that the OEB should indicate that it will not in future accept any OH rate proposal unless the OEB is provided with a reasonable evidentiary basis for doing so.

IV ENERGY SERVICES AND THE ENVIRONMENT GROUP

33. CAC has concerns about the lack of information provided by OH in this proceeding on energy management expenditures, program design and program screening given the OEB's stated intent in HR 21 to examine the effectiveness of those expenditures in future. OH's lack of evidence on its 1995 plan make it difficult for the OEB to assess the plan and to consider criticism.

34. CAC urges the OEB to recommend specific consultation on OH's DSM planning as a continuation of the Energy Efficiency Consortium process.

35. CAC urges the OEB to recommend OH provide a detailed report in HR 23 on its 1995 programs and longer term proposals.

V RATES

36. CAC submits that OH's proposals for surplus power, guaranteed and load retention rates represent a significant departure from traditional rate-making. Those proposals have in common the characteristics that they are targeted at individual customers and relied, in some measure, on the application of quantitative criteria.

37. CAC submits that the OEB, before accepting a departure from traditional rate-making, should be satisfied that the following tests have been met:

(a) that the proposed specialty rates are either revenue neutral or will generate more revenue than they will lose;

(b) the specialty rates achieve their expressed goals;

(c) that the specialty rates have no negative effects.

38. CAC submits that there is no evidence before the OEB as to what the impact of the specialty rates is likely to be. In addition, CAC submits that the evidence before the OEB is that OH has done little or no analysis of the likely effect of free riders in those specialty rates. CAC submits, therefore, that the first test has not been satisfied.

39. The expressed goals of the specialty rates are to retain load for OH, assist customers in becoming more competitive and assist Ontario businesses in becoming more competitive. It is submitted that there is no evidence that the specialty rates will achieve those goals and it is submitted that the OEB shall not rely on anecdotal evidence that those goals will be achieved.

40. It is submitted, therefore, that the second test has not been met.

41. It is submitted that the proposed specialty rates carry with them the risk of substantial negative side effects. It is submitted that applying those specialty rates according to qualitative criteria will inevitably result in discrimination among customers.

42. It is submitted that the potential for negative side effects of the specialty rates but be mitigated if they were both controlled to OH and regulatory oversight. Neither of those exist.

43. It is submitted, therefore, that the third test has not been met.

44. CAC has no problem with specialty rates per se as long as they can be justified. However, CAC submits that any of these proposed specialty rates should meet the threshold tests set out in paragraph 31 above. If any specialty rate fails to meet all of those tests, the OEB should not grant approval of it.

45. CAC submits that the OEB must consider and comment on the special arrangements OH has entered into with Suncor and the Dow Consortium. The Suncor and Dow Consortium arrangements are in CAC's view examples of specialty rates in that they are designed to retain load. CAC submits Suncor and Dow Consortium arrangements do not meet the threshold tests. The fact that, regardless of the OEB's recommendation, OH may be able to enter into other arrangements like the Suncor and Dow consortium arrangements raises serious concerns for the OEB. CAC recommends that the OEB in its report recommend that there be no further arrangements like the Suncor and Dow Consortium arrangements until a system of independent regulatory oversight has been created.

VI THE CONSULTATIVE PROCESSES

46. CAC submits the OEB should, in its report to the MOEE, identify those areas of OH's activities which should include consultative processes. CAC submits that those areas should include, at a minimum, the development of appropriate benchmarking standards, the development of specialty rates, IRP, DSM program review and the development of full-cost accounting. In addition CAC submits that the OEB should recommend guidelines as to the form and content of OH's consultative processes.

47. CAC submits the OEB should recommend the following as a minimum standard of guidelines for OH's consultative processes:

(a) The parties to the consultative process should, at a minimum, consist of all major stakeholders, defined as those groups who would be affected by any rate proposals. CAC suggests that, again as a minimum,

the major stakeholders should include representatives of the municipal electric utilities, the major power consumers, independent power suppliers, residential consumers, aboriginal groups and environmental groups;

(b) OH should be required to present any proposal on which it seeks input from stakeholders in sufficient time for those stakeholders to make informed comment. That sufficient time should include the time necessary for consultation with experts;

(c) OH should meet with stakeholders to review the comments which stakeholders have made. If OH is not to reflect those comments in its decisions, OH should be required to indicate formally why it has not reflected those comments;

(d) The costs of the consultative process, including the costs of any experts retained to advise stakeholders, should be borne by OH. The OEB should establish, as part of its guidelines for the consultative processes, what the appropriate funding mechanisms should be.

VII COSTS

48. CAC asks that it be awarded 100% of its reasonably incurred costs. CAC submits that its participation in HR 22 has assisted the OEB in understanding the issues and that it has conducted its intervention responsibly.

EXECUTIVE SUMMARY OF CANADIAN ASSOCIATION OF ENERGY SERVICE COMPANIES

I. RESTRUCTURING

RECOMMENDATION: In the view of the Canadian Association of Energy Service Companies, this Board should recommend that:

1. Ontario Hydro devise and implement a comprehensive consultation process with stakeholders to review the restructuring of Ontario Hydro to determine whether the now structure is meeting the goals of each of its business groups.

2. The organizational structure of the Energy Services and Environment Group should be reviewed and appropriate changes made in order that the Group can effectively plan and deliver the required customer-focused energy management programs and successfully move from incentive based programs to market transformation programs.

3. The Government should undertake an evaluation of the regulatory process in place for review of Ontario Hydro's proposed rate Increases to determine if that process remains relevant in light of the restructured Ontario Hydro. Alternatively, the Board could undertake its own review pursuant to section 13(5) of the Ontario Energy Board Act.

V. ENERGY SERVICES AND ENVIRONMENT GROUP

A. Energy Service Planning and Strategy

RECOMMENDATION: In the view of the Canadian Association of Energy Service Companies, this Board should recommend that:

1. In future H.R. hearings Ontario Hydro be required to file detailed program and expenditure plans for its energy management programs and the cost benefit analysis for each program.

2. Ontario Hydro should undertake a formal, comprehensive consultation process with stakeholders to assist Ontario Hydro in program design, implementation and evaluation.

C. Energy Management programs

<u>RECOMMENDATION:</u> In the view of the Canadian Association of Energy Service Companies, this Board should recommend that:

1. Ontario Hydro's energy management programs should be more focused in terms of increasing public awareness of the cost benefit of energy efficiency through education and assisting stakeholders in marketing energy services.

2. Ontario Hydro's energy management Initiatives in regard to ESCO development should focus on broad based marketing efforts to penetrate those market segments which ESCOs have not yet been able to penetrate, such initiatives to be undertaken In cooperation with CAESCO.

3. Ontario Hydro should utilize ESCOs to the fullest extent possible in its In-House program.

4. Incentives should only be utilized In specific circumstances where they assist In market transformation and encourage comprehensive retrofits/renovations.

VI. RATES

<u>RECOMMENDATION:</u> In the view of the Canadian Association of Energy Service Companies, this Board should recommend that:

1. Rates should be designed to be consistent over the longterm and encourage conservation. Ontario Hydro's planning and operations should avoid rate shocks.

SUBMISSION OF MR. EARL

It is with a great deal of regret that my ninth and last appearance yielded no fruit for my labours. I attempted as a Hydro pensioner to produce an overview of Ontario Hydro - Old, Past and Future.

Ontario Hydro - Old, sincerely adhered to the Power Corporation Act. Ontario Hydro - Future is sincerely attempting to correct the mistakes of the 'Past' by addressing and establishing a goal of Sustainable Energy Development. Ontario Hydro - Past, deceived the people of this province and themselves in turn by creating a devouring Monster in Nuclear Power.

You, the members of this Board have the responsibility of addressing in your report to the Energy and Environment Minister, the commitment of Hydro-Past in setting the stage for the Four Horseman of the Apocalypse. Revelation Chapter 6, verses 1 - 8.

EXECUTIVE SUMMARY OF ENERGY PROBE

CHAPTER ONE - CORPORATE RESTRUCTURING

Objectives of the Restructuring

Energy Probe welcomes the progress to date in the Corporate Restructuring of Ontario Hydro, whose logic and coherence can only be understood in light of it being an interim step toward a sustainable, final organizational structure. Hydro's testimony at the hearing regarding the long term desirability and inevitability of an open and fully competitive power market in Ontario establishes an important context in which to view the specific 1995 rate and restructuring proposals, deemed by Hydro as interim measures. Energy Probe's support for Hydro's short term restructuring actions is inextricably linked to the direction of the Corporation's long term goals.

Although Hydro can cut costs further, thereby improving its competitive position, cost cutting cannot accommodate the kind of pressures evidenced at this hearing, necessitating further restructuring. Ontario Hydro cannot fully carry out the objectives of its own restructuring without a restructuring of the electricity sector. Knowledge of the eventual structure of the electricity industry is vital and delay could lead to great cost. The Minister should facilitate an early decision on the future of Hydro. Although the OEB is not examining options for further restructuring at this point, it is viewing rate proposals for 1995 with the knowledge that further change is bound to come. Energy Probe suggests that the OEB recognize the restructuring to date as the first of several steps to be taken in the near future. The Board should reject recommendations that might prejudice Hydro's future restructuring options or require monopoly powers to achieve its goals.

Recommendation:

1 **In light of the impending debate regarding electricity sector reform, the OEB should reject policies or expenditures that might prejudice Hydro's future restructuring options** (Argument, page 3).

2 **The Minister should call on Hydro to file a proposal for changes to the electrical system in Ontario, including changes to the Power Corporation Act and the Ontario Energy Board Act, to the Grid, its ownership, and the ownership of Hydro's generating assets. This proposal should precipitate a public hearing before the OEB, which would subsequently form the basis for a government decision** (Argument, page 13).

The Corporate Mission, in its orientation to the province, usurps the role of elected politicians. Energy Probe would recast the mission statement in terms of Ontario Hydro rather than the province, to make Hydro the most competitive and efficient it can be.

Energy Probe supports Mr. Strong's definition of sustainable development - that economic efficiency is what sustainable development is all about - and supports some specific recommendations of the Sustainable Development Task Force, but with no Hydro Board acceptance or rejection of many of the recommendations to date, it is difficult to evaluate what is being proposed by Hydro in this regard. Energy Probe is concerned that Hydro may not be applying sustainable development principles equally to all divisions of the Corporation, particularly regarding its international projects.

Recommendation:

3 **Adoption of sustainable development as a corporate goal should not increase rates, and should be applied equally to all divisions of the Corporation** (Argument, page 22).

Organizational Restructuring

Energy Probe supports the reorganization of Hydro into business units. The separation of Hydro's generation and distribution functions was advocated in by Energy Probe at HR 21 and in other fora to increase cost transparency between various forms of generation and to prepare Hydro for functioning in a competitive market. Testimony at this hearing which revealed both the extent of the subsidy between various forms of generation and Hydro's preparedness for open competition suggests that the Business Unit reorganization is having the desired effect.

However, Energy Probe finds that accountability to the ratepayer and shareholder has been reduced in some area; data on individual hydroelectric stations, the Heavy Water Division Business Plan, and the Suncor deal are all secret. Secrecy over the Suncor deal is especially disconcerting because no independent review will test Hydro's assurances that based upon current forecasts there will be no cross-subsidy as a result of the deal. This would be unacceptable in the regulated gas industry, where by-pass avoidance rates are scrutinized by the Board to protect non-participating customers from unfavourable rate impacts.

Business Units are not given the freedom to purchase least-cost external services, which Energy Probe submits is necessary for Business Unit cost control.

Energy Probe does not support the placement of the former NUG Division in the new Environment and Energy Services Division.

Recommendation:

4 **The former NUG division should be organized as a supplier to the Grid Company, with self-generation NUGs remaining within the purview of ES&E** (Argument, page 23).

Energy Probe supports Hydro's staff reduction efforts. Energy Probe, the OEB, and other parties had argued in the past for staff reductions, but Hydro's past attempts to comply were costly and ineffective. Hydro's recent endeavour to reduce staff levels represents an important and positive departure from past policies, and is a result of competitive pressures on the Corporation. Energy Probe argues that greater levels of competition would achieve greater ratepayer

benefits. Although 4,500 staff reductions were estimated to be necessary to obtain corresponding cost reductions, Hydro later found that service levels had not been affected and there were still surplus staff: using a "proxy" for the market did not, in this case, achieve the most societally beneficial outcome. Energy Probe recommends that Hydro work to achieve further staff reductions, using standards of service and performance benchmarks to guarantee good service levels.

Energy Probe believes there are drawbacks to the specific staff reductions tools used by Ontario Hydro. In particular, the voluntary severance programs were not sophisticated enough to prevent valuable employees from leaving, as is evidenced by Hydro's admission that it had to rehire some staff that had received severance packages and that "some critical skills were lost". The most serious effect of this indiscriminate staff reduction program was the loss of personnel trained to run generating stations in the event of a PWU strike, increasing Hydro's vulnerability to a strike, which it testified it cannot take. Hydro was unable to pursue alternative staff reduction approaches due to its labour relations constraints. Energy Probe submits that as long as Hydro's labour relations restrict its staff reduction options to voluntary severance, and as long as voluntary severance continues to result in the loss of critical skills, Hydro's vulnerability to strike action will continue to grow, its negotiating position with unions will continue to weaken, and Hydro will find it increasingly difficult to realize its cost reduction goals, which are already constrained by labour relations. Hydro should work to reduce its vulnerability to strike, which will increase its ability to utilize a fuller range of staff reduction tools (Argument, page 25).

Hydro's new policy of setting rates administratively lends itself to new politicization and exacerbates the existing weaknesses of the current regulatory structure. In the absence of a competitive market to set the rate for power, at a minimum, the OEB should determine the appropriate average rate, as a surrogate for competition. Although Hydro can propose the surrogate price by trying to emulate a competitive market, its decision should be reviewable. Having a regulator set prices is now especially important, in Energy Probe's submission, to avoid politicization of the "rate-by-fiat" process.

Although many parties, including Energy Probe, support OEB regulation of Ontario Hydro, the regulation question cannot be resolved in the absence of a decision on industry restructuring. The need to resolve the question of regulatory oversight, in tandem with future industry restructuring, is pressing, and Energy Probe urges the Minister to convene a public hearing for this purpose, as recommended earlier in this chapter.

Efficacy of Financial Restructuring

Account consolidation has given Hydro financial flexibility, short-term survival, and a bridge toward further restructuring. In that context Energy Probe finds the consolidation reasonable in the short term. In the long term, it removes the need for financial discipline by Hydro, and is not in the long-term interest of the Province, of the ratepayer or of the Corporation. The need to embark on the account consolidation is to Energy Probe an indication that the Corporation is not yet financially sound, and that further structural change is vital.

Energy Probe has concerns that a short term debt structure increases risk to the Corporation and ratepayers, but recognizes the immediate need of the Corporation to reduce costs, despite the risk. This debt structure change would increase volatility and instability if it were allowed to persist on a long-term basis.

As a goal, going below the present 90 per cent debt ratio is laudable, but in the short term a higher debt ratio may be necessary. Energy Probe argues for more transparency of the real existing debt levels, and suggests that further asset write-downs may be necessary, even if they increase Hydro's debt/equity ratio.

Overvalued assets should properly be written down, and Energy Probe supports the actions taken by Hydro as appropriate. But overvalued assets remain on Hydro's books, so Energy Probe recommends that Hydro continue to evaluate options for further writedowns. A further $11 or $12 billion of nuclear assets should have been written-down, but weren't because Hydro had no mechanism for the upward revaluation of hydraulic assets without violating GAAP. If Hydro had the authority to sell its hydraulic assets, the nuclear assets could have been written down to the level Hydro believes they are worth without putting the Corporation in financial jeopardy. This may indeed become necessary, and provides another argument for embarking on further restructuring.

Hydro's financial position is still precarious, and the things it is making money on are not without environmental cost. If Hydro stopped its restructuring activities now, the objectives of restructuring would not be achieved. There is substantial and unanticipated financial and competitive pressure on the Corporation. Neither Hydro, the OEB nor the government can afford to become complacent about the state of Ontario Hydro's financial health: in Energy Probe's submission, it is inextricably linked to further competitive restructuring.

CHAPTER TWO - CORPORATE OVERVIEW

Energy Probe supports Hydro's attempt to reduce costs by looking to the market for accurate pricing signals. The new "price drives cost" principle should be seen by the Board and the parties as an interim step to future restructuring and regulatory changes. Energy Probe believes the surrogate market price is susceptible to arbitrary decisions and political influence and is therefore unacceptable as a long-term policy. Energy Probe is concerned about the potential for breaching the principle of intergenerational equity.

If Hydro considers willingness to pay to be the new test of rate levels, and if Hydro is to be driven by the rates its customers will bear, then a zero rate increase is indicated by the evidence at HR 22. Low rates must be supported by low costs. Hydro could cut its costs further, particularly by reducing surplus staff, eliminating the compensation differentials, divesting OHE, postponing non-safety related grid maintenance until maintenance cost reductions can be achieved, terminating SHARP and reducing other Hydroelectric Business Unit capital expenditures, contracting out for fossil capital expenditures, and eliminating rate-increasing DSM.

If Hydro is as price sensitive as its testimony indicates, and if it is already losing load, as it says it is, it would be illogical to raise rates at all. If it truly believes the risk is high that the gap will widen between its rates and those of its U.S. and provincial competitors, it would be illogical to raise rates at all.

Recommendation:

5 **Hydro should adopt the "price drives cost" principle but with a view towards studying the feasibility and acceptability of market prices over the existing surrogate market price** (Argument, page 41).

6 **Hydro should freeze rates for 1995 and begin preparations for a real rate decrease in 1996** (Argument, page 43).

Policy on Transfer Pricing

Energy Probe applauds Hydro's intention to create an internal market for electricity products and services through transfer pricing. An internal market for electricity transactions would assist in improving Hydro's internal efficiency for the benefit of customers and could provide a bridging step to further restructuring changes. Hydro's transfer pricing scheme is a good initial step that sheds light on the subsidy transfers within Hydro, promotes efficient internal pricing of short run energy, recognizes the grid's obligation to provide reliable power at minimum cost, and recognizes that equivalent amounts of electricity have equivalent value regardless of source. Hydro's transfer pricing initiative demonstrates, in Energy Probe's view, Hydro's capability to implement some of the dramatic changes to someday provide Ontario with an efficient, sustainable electricity system. This view was strengthened by the willingness of Hydro's witnesses to express frankly and openly the scheme's limitations, by their desire to improve it, and by their willingness to learn from others.

Transfer pricing can be developed internally at Hydro without institutional changes, although accommodating full open access would require institutional changes. All the business units contain a range of facilities, with some more efficient that others, and encouraging competition among the stations would benefit customers. Full implementation of efficient transfer pricing must wait for comprehensive asset revaluation: Hydro intends to phase out the subsidies in the transfer pricing scheme once the debt has been properly allocated to each of the business units, allowing them to operate competitively while servicing their portion of the debt, which the Nuclear Business Unit is not yet able to do.

Recommendation:

7 **Hydro should pursue the development of a fully functioning internal market for goods and services modelled on an open, competitive market** (Argument, page 46).

8 **Hydro should design its transfer pricing system to encourage competition between generating units within a business unit** (Argument, page 46).

9 **Hydro should design its transfer pricing system so that any business unit's failure to meet contract commitments carries with it a direct financial penalty** (Argument, page 46).

10 **Hydro should determine the amount of the additional write-off required in the context of a comprehensive restructuring, and report to the OEB on its findings** (Argument, page 47).

Net Income Forecast

Energy Probe supports Hydro's assessment of the financial challenges still facing the Corporation. Energy Probe argues that much of Hydro's new profitability is a result of recent accounting changes, such as write-offs and money from SDR. Hydro is still very vulnerable, regardless of its new profitability, real or not, and neither Hydro, the OEB

nor the government can afford to become complacent. The targeted $100 million cut to OM&A is unfortunately unlikely to be achieved, which brings further focus to the need for direction from government on further restructuring of the Corporation.

Financing Strategy
While a lower debt ratio is desirable in the long term, in the short term a higher debt ratio may be necessary. Energy Probe argues for more transparency of the real existing debt levels by writing down fictitious and overvalued assets, even if they increase Hydro's debt/equity ratio. Hydro's recent and massive write-down did not really worsen its debt/equity ratio; it merely moved toward an honest admission of how bad it was, and is.

Depreciation
Energy Probe is pleased that Hydro's Board of Directors has approved, in principle, the establishment of a Nuclear Decommissioning Fund, but is surprised by the lack of discussion of the full financial impacts of actually providing a funded reserve, rather than an accounting provision, and has very little confidence that the quantum of the provisions will be adequate.

Recommendation:

11 **To ensure that decommissioning and radioactive waste disposal funds are in fact set aside, the accumulated liability should be transferred to the fund promptly, as envisaged in Exhibit 4c.6.1, section b)** (Argument, page 49).

12 **Hydro should accumulate sufficient funds for radioactive waste disposal and decommissioning by the time of station shutdown** (Argument, page 52).

13 **The Board should require Hydro to reexamine its provisions for nuclear facility decommissioning and radioactive waste disposal, and submit a full discussion and rationale for its calculations for HR 23** (Argument, page 52).

Energy Probe applauds Hydro's decision to prematurely close Bruce 2 in September 1995 after 18 years of service. Hydro's prime rationale for the shutdown -- maintenance-induced degradation from a lead shielding device being inadvertently left in a boiler -- is in Energy Probe's view only one of many potential causes of premature shutdown that might afflict other reactors. Nuclear performance decline remains a major risk to reactor service period estimates. Energy Probe believes that a 40 year depreciation period is imprudent. Ontario Hydro Nuclear has overestimated the life expectancies of Bruce-A Units 1, 3, and 4.

Ontario Hydro's nuclear generating stations are not assets in the conventional sense, and it is extremely risky to treat them as such. They are *strandable* assets -- "assets" poised to transform themselves into liabilities, through premature retirement and early write-offs, and through unfunded expenses, including decommissioning and waste-disposal costs, but also including "unanticipated" repair costs, operating restrictions, safety upgrades, and regulatory requirements.

The Board must urge Ontario Hydro to include as much depreciation of these nuclear assets as possible in the current rate year, and must object when Ontario Hydro uses optimistic assumptions to justify depreciation over unrealistically long periods. It is only a matter of time before a very large charge has to be entered into Ontario Hydro's books to reflect the difference between what these nuclear stations cost and what they are worth. At such a time, in Energy Probe's submission, it is not prudent to delay charging for nuclear depreciation costs that are clearly due now. Ontario Hydro has underestimated its future nuclear costs and risks, and those future nuclear costs and risks constitute some of the gravest risks to the future viability of the still-restructuring Ontario Hydro.

Recommendation:

14 **Hydro should include as much depreciation of its nuclear assets as possible in the current rate year** (Argument, page 54).

15 **This Board must not allow Ontario Hydro and Ontario Hydro Nuclear to misrepresent, and under-collect, the actual present cost of generating power from Units 1, 3, and 4 of Bruce A. Ontario Hydro Nuclear should begin depreciating Bruce A Units 1, 3, and 4 over their actual life expectancies -- in any case, not longer than their estimated Pressure Tube life limits, to January 2000, April 2008, and April 2011, respectively** (Argument, page 56).

16 **Hydro should examine options for writing down nuclear assets, including writing up hydraulic assets despite GAAP, and sale of hydraulic assets for the purpose of realizing their full value, and report to the OEB on its findings at HR 23, or sooner** (Argument, page 57).

Accounting Policy Changes

Energy Probe finds the rationale for the NUG and DSM accounting changes understandable, as the changes will give Hydro additional short-term financial flexibility and further ability to move toward more fundamental restructuring. However, the accounting changes made are undesirable as a long term policy. There is insufficient assurance of future value to permit capitalization and deferral of some NUG and more DSM costs. Writedowns would have been more appropriate, making Hydro more transparent.

Human Resources Plan

Hydro has had some success in reducing payroll costs, but compensation differentials are increasing, despite repeated direction to reduce or eliminate them. Hydro maintenance trades staff are compensated 16.2 per cent, and Society staff 16 per cent, above the community average. Hydro's demonstrated inability to reduce labour costs is a barrier to its ability to price its power competitively and to survive in an open market. Hydro is unlikely to bring its labour costs down without providing greater freedom to the business units to obtain lower cost services. To commit ratepayers to overpay Hydro employees in perpetuity would be completely unacceptable. But given that Hydro is becoming increasingly unable to 'take a strike', and given that compensation differentials are increasing, despite repeated direction to the contrary, this may indeed be the future to which Hydro is committing ratepayers, barring utility steps to improve its negotiating position with its unions.

In the interests of power security and successfully negotiating competitive compensation, Hydro should start appropriate planning and preparation to operate the power system in 1996 in the event of a strike. In 1985, during a strike of about 10 days Hydro maintained service without major disruption of customers. Although Hydro decided not to operate the power system in 1994 had there been a strike, Energy Probe believes that Ontario Hydro has the necessary equipment, power purchase options, and load management options to maintain service in event of a strike in 1996 if sufficient preparation is made to deploy the available equipment and options. Hydro should undertake to: interview operators of the system during the 1985 strike to document the lessons learned; improve available management skills and qualifications through training or special hiring if necessary; make preparations with neighbouring utilities; ensure Society member commitment to support full operation of the system through the upcoming Society contract; and, should Bill 40 remain in place, take action to strategically locate necessary Society staff. Should additional security be required, Hydro should consider further options including: procuring NUGs at strategic locations such as the Greater Toronto Area; instituting special interruptible customer contracts in strategic locations such as the Greater Toronto Area for interruption only in event of a 1996 strike; and introducing special, time-limited high rates to ration consumption during a strike. Labour arbitration which would likely result from essential service legislation could not be relied upon to achieve the great movement required to reduce Hydro's payroll costs to market prices.

Recommendation:

17 **Hydro should take further steps to reduce overtime costs and compensation differentials in 1994 and 1995** (Argument, page 59).

18 **The Board should advise the government of the difficult strike position Bill C-40 creates for Hydro and should recommend to the government that Bill C-40 be amended to exempt Hydro workers from its provisions** (Argument, page 62).

19 **Hydro should take steps to allow it to 'take a strike', to improve the security of the Ontario power system and to improve its wage negotiating position** (Argument, page 62).

Hydro should ensure that any pay for performance system introduced includes measures which incent safety and quality of service and not just financial indicators.

Energy Probe supports the principle of benchmarking, and notes that it is important in both a competitive and a monopoly market.

Recommendation:

20 **Hydro should use the cost of power as a benchmark of its performance relative to neighbouring utilities, and include the cost of production from various types of facilities, including: labour costs, fuelling costs, capital additions, and taxation costs** (Argument, page 63).

CHAPTER THREE - ONTARIO HYDRO ENTERPRISES

Ontario Hydro Technologies

OHT's profitability is very uncertain, and Energy Probe can see no reason for OHT to form part of the rate base.

Recommendation:

21 **Ontario Hydro should explore options for divesting itself of Ontario Hydro Technologies** (Argument, page 64).

Ontario Hydro International

Probe International[1] submits that because of the way OHI selects and invests in projects, OHI is unlikely to fulfil its mission statement -- to be the world leader in sustainable energy development. OHI is likely to simply rely on the practices of the host country, rather than declining to invest in projects that do not fulfil sustainable energy development criteria. OHI seems likely to vary its sustainable development criteria to make it acceptable to the host country, even if that means leaving out fundamental aspects like notification and participation of local people.

Recommendation:

22 **OHI should be required to follow the same criteria with respect to rules of disclosure, due process, and the right to a fair hearing and compensation it follows in Ontario. If a host country refuses to comply with the sustainable development criteria established in Ontario, OHI should not take an equity position in the project** (Argument, page 67).

Despite having state of the art design, safety, and efficiency standards available to it, and despite recognizing that using these high standards decreases the risk on a project, OHI admits that when building dams abroad it will not abide by design, safety and efficiency standards that would be used for similar projects in Ontario. OHI acknowledges that its role as equity holder does present a new risk to ratepayers. Probe International submits that it would be prudent for OHI to decrease the risk to Ontario ratepayers by using state of the art standards of design, safety, efficiency and emergency plans. If OHI does not apply to its overseas projects the same sustainable development criteria and safety and design standards that Ontario Hydro would require domestically, then skills acquired through OHI may not be of value to Ontario Hydro, and may indeed be counterproductive and dangerous.

Recommendation:

23 **OHI should recognize that failure to comply with high levels of design, safety, and emergency standards increases the risk of loss -- both of life and economic loss -- on the project. To decrease the risk to Ontario ratepayers, who are ultimately responsible for the economic loss, OHI should use design, safety, efficiency and emergency standards at least as high as used by Hydro in Ontario. To ensure that Hydro's standards are applied in all OHI projects, those standards must be publicly disclosed, as must their**

designs. Further, if a host government or private-sector partner refuses to apply such standards, OHI should withdraw from the project (Argument, page 70).

Increased transparency and accountability have been cited by Ontario Hydro as benefits of its new structure. But it is Probe International's understanding that OHI does not intend to disclose, either to the OEB or to the public, the principles and criteria it uses in its decisions with respect to investment of resources. Rather, the criteria and principles used are kept secret along with project information through the internal project approval process. A completely internal project approval process -- including the criteria considered in the decision-making process -- is not accountable to ratepayers in Ontario or to people directly affected by projects abroad.

Recommendation:

24 **The public and the OEB should have access to information used by OHI in its decision to take an equity position in a project so that the soundness of the investment can be scrutinized. This disclosure is in keeping with the increased transparency and accountability cited by Ontario Hydro as a benefit of its new structure. The criteria, principles and analysis (e.g. financial, technical, environmental, sustainable development, etc.) used by OHI in its investment decisions should be publicly disclosed and reviewed by the OEB on an annual basis** (Argument, page 72).

25 **The domestic hydraulic design, safety and efficiency standards being used by Ontario Hydro at the time of the rate hearing should be disclosed to the OEB annually and to the public. The design, safety and efficiency standards used by OHI for its projects in other countries should be disclosed to the OEB annually and to the public in Ontario and in the host country. This information is necessary if the OEB is to assess the risk to Ontario ratepayers of projects in which OHI takes an equity position** (Argument, page 72).

26 **OHI should follow the same sustainable energy development criteria as used by Ontario Hydro in Ontario, and should publicly disclose, and submit to the OEB for review, the criteria used in all OHI projects -- as an equity holder or as a consultant** (Argument, page 73).

27 **If the OEB finds that the Ontario public is not going to have at least as much access to information about Hydro's activities overseas as at home, and if Hydro is not going to apply to its international projects the domestic standards of design, safety, efficiency, emergency preparedness, sustainable development, OHI should be excluded from the rate base and the provincial loan guarantee, and Hydro should examine divesting itself of OHI** (Argument, page 73).

CHAPTER FOUR - ELECTRICITY GROUP

Grid System Business Unit

Energy Probe is encouraged by Hydro's willingness to admit to the deficiencies of its preliminary transfer pricing regime and its stated commitment to improving the system. Specific deficiencies in the current system include: absence of incentives or information for long-term decision-making, lack of incentives for performance due to the use of a cost-based balancing payment, no pricing of grid services, no pricing of ancillary services (such as reactive power, automatic generation control, and black start capability), no pricing of capacity over time, and no pricing to meet short-term needs (such as overtime costs due to start-up on short notice). To make business units responsible for failure to meet contract commitments, the transfer pricing scheme should ensure that generators only receive payment for production of desired goods and services, just as NUGs receive payment only when they produce. The 1994 transfer pricing scheme does not provide adequate signals to drive decision-making within the business units. To complement a spot energy market, rather than entering contracts of long duration and thereby limiting the flexibility of future restructuring, Hydro should develop a system of scarcity-based capacity payments such as those based on a loss of load probability.

Ensuring maximum value from grid assets is necessary for the minimization of near-term rates to customers and also for the future success of Ontario's electricity sector. Energy Probe is concerned by Hydro's plan to under-fund grid maintenance but views the decision as acceptable if institutional changes can be quickly introduced which will bring maintenance costs down to a competitive level.

Recommendation:

28 **The transfer pricing scheme should ensure that generators only receive payment for production of desired goods and services** (Argument, page 75).

29 **Hydro should undertake a detailed valuation of grid assets for the purpose of establishing rate criteria for all customers based on the cost of service. In developing a pricing system for grid services, Hydro should explicitly consider developing distance-based rates or geographic transmission rate zones** (Argument, page 75).

30 **Hydro should not enter into power contracts of longer than one year in duration, to increase the flexibility of FBU, the government, and the utility to undertake further necessary restructuring steps** (Argument, page 76).

31 **Hydro should develop a system of scarcity-based capacity payments** (Argument, page 76).

Hydroelectric Business Unit

HBU's Small Hydraulic Assessment & Retrofit Program (SHARP) is developing new capacity at an average cost of $4,139 per kilowatt -- more than twice the cost of private projects on undeveloped sites and about three times the cost of private rehabilitation of existing sites. The SHARP projects are being brought into service at a time when

Hydro is paying customer-competitors like Suncor not to build facilities, and offering discount power to reduce the capacity surplus. With the prevailing low system value of incremental power, HBU should not proceed with SHARP unless alternative, cost-effective means of rehabilitating hydraulic units are developed.

Hydro has persistently failed to achieve unit performance up to the forecasted capability

Energy Probe fears waste in HBU's capital program, whose committed projects total $67 million for 1994 and $50 million for 1995. If Hydro's recent history is any guide, these expenditures are likely to be wasted. Historically assets have been harvested, reliability undermined, and maintenance backlogged, and there is a great need to reverse these conditions.

Recommendation:

32 **HBU should terminate the SHARP program** (Argument, page 79).

33 **In the alternative, HBU should make all data on the ongoing SHARP projects public, and invite tenders from the private sector on these projects, including completion of projects now underway. HBU can then use the tenders to determine which projects are worthwhile** (Argument, page 79).

34 **If cost-effective rehabilitation alternatives are not available, HBU should decommission or sell its hydraulic units when rehabilitation would otherwise be required. Affected First Nations should participate in such decisions** (Argument, page 79).

35 **HBU should prepare a study benchmarking hydraulic production forecasting and hydraulic forced outages and deratings** (Argument, page 80).

36 **The Ontario Energy Board should advise the Minister of the risk of further deterioration in Ontario Hydro's value posed by HBU's continuing capital program, and should advise the Minister of the need for alternative, more competitive institutional arrangements to support the required investment** (Argument, page 80).

Although HBU's Business Plan identified Aboriginal grievance settlements as an unfunded liability and a business risk, it is unaware of aboriginal land claims that could potentially affect its hydraulic operations. The Minister should be made aware that HBU may not be making preparations for such contingencies.

HBU's business plan identified water rents as a "significant business risk" [4.1.4: 12]. Energy Probe recommends that HBU and the OEB take note of this uncertainty, and act appropriately. Energy Probe supports HBU's suggestion that it examine with the Province water rental rates that are site-specific but rather than set rates according to the varying impacts at each site, as HBU suggests, Energy Probe recommends that the Province set water rental charges on a case-by-case basis with rents reflecting the value, or opportunity costs, of each site.

Improving Hydro's transfer pricing scheme to include full valuation for ancillary services would benefit the Hydroelectric Business Unit.

Recommendation:

37 **Ontario Hydro should make contingencies for Aboriginal grievance settlements and increased water rental fees** (Argument, page 82).

38 **Ontario Hydro should explore with the Province the establishment of site-specific water rents.**

Nuclear Business Unit

Ontario Hydro Nuclear's Business Plan justifies grave concern for the successful completion of the Plan -- a Plan which is "vital to ensuring that Ontario Hydro achieves its operating and cash flow targets". Among the uncounted risks to Ontario Hydro Nuclear's Business Plan is the risk of regulatory reform in the field of radioactive emissions -- reform for which Ontario Hydro Nuclear has made no provisions.

Recommendation:

39 **Ontario Hydro should move to set an example in the field of radioactive emissions abatement (and in so doing make financial provisions to achieve improved standards over time), by applying the same abatement principles to its radioactive toxic emissions as it applies to its non-radioactive toxic emissions** (Argument, page 87).

There are many risks to OHN's net income forecast, and adequate provisions and pessimism have not been incorporated into that Plan or that forecast: the substantial risk that the performance of the B stations will decline with age, and that Hydro's assumption of a 40-year service period for all reactors other than B2 will not bear out.

Recommendation:

40 **Hydro should produce cost estimates of the impact of shorter nuclear station service lives for HR 23.**

Fossil Business Unit

Ontario Hydro's fossil capacity is aging and faces a host of efficiency, reliability and environmental problems. Major capital programs designed to address primarily the latter two issues have recently been completed at the Lakeview and Lambton stations, although Ontario Hydro's Board included the termination of the Lambton 1 and 2 rehabilitation program in the recently announced write-down. The rehabilitation of four units at Lakeview cost $708/KW, but Hydro's Thermal Cost Review found that a brand-new, very clean, gas-fired combined-cycle unit could be built for $716/KW in 1991 dollars. At that cost, Lakeview Units 5 and 6 -- a major point source of urban air pollution in Metro Toronto -- could have been entirely replaced by very clean, brand-new combined-cycle capacity, for $80-$90 million less than the cost of rehabilitating them. The four Lakeview units performed poorly in the year of service after rehabilitation.

Recommendation:

41 **In light of Ontario Hydro's failure to effectively rehabilitate Lakeview, Hydro should not undertake any further fossil rehabilitations. When required, future rehabilitation should be contracted out on a tendered basis, and should not proceed unless the rehabilitation costs are justifiable -- at least significantly lower than the cost of new capacity of comparable or greater value. If cost-effective rehabilitation alternatives are not available, FBU should decommission or sell its units when rehabilitation would otherwise be required** (Argument, page 89).

42 **Hydro should acquire a benchmarking study on fossil rehabilitation and maintenance in the U.S. and in jurisdictions like the U.K. where competition prevails. The study should compare world experience with Hydro's recent and planned programs. Hydro should prepare such a study and make it public** (Argument, page 90).

CHAPTER FIVE - ENERGY SERVICES AND ENVIRONMENT GROUP

NUG Strategy and Programs

Energy Probe supports Hydro's decision to withdraw NUG subsidies, and urges the OEB to reject IPPSO's pleas for special treatment for renewables and small NUGs.

Hydro has a very poor record as a NUG purchaser: next to Darlington and, possibly, completed SHARP projects, NUGs may be Hydro's most expensive source of baseload. Energy Probe recommends writing off a portion of the NUG contracts representing their front end load, so as to reflect the excess cost of NUGs relative to their value.

Ontario Hydro is in a conflict of interest with respect to NUGs, being both regulator and competitor to NUGs. This long-standing problem should be addressed through restructuring.

Recommendation:

43 **In times of oversupply, Hydro's ratepayers should not be required to pay to encourage private developers to build load displacement or purchase NUG which will exacerbate the problem of oversupply** (Argument, page 92).

Energy Management Programs

Energy Probe supports Hydro's intention to "promote energy management through a market-driven strategy rather than a Hydro-driven strategy which relied heavily on cash incentives". Energy Probe urges the Board to reject the Green Energy Coalition's testimony that Hydro continue to pursue monetary conservation incentives. Energy Probe supports Hydro's new focus on improving internal energy efficiency as a method of advancing sustainable development.

Five per cent of rates paid in 1995 were attributable to Hydro's conservation programs, and Hydro's portfolio of DSM "assets" which are contributing to this rate impact should be written off.

Energy Probe is concerned by the confusion and waste created by Hydro's conflicting demand management objectives -- making demand both increase and decrease. Hydro's conflicting policies to encourage both load growth and load decline results in Hydro's decision that customers receiving special discount rates designed to increase or maintain load qualify only if they have also received DSM handouts from Hydro.

Energy Probe supports Hydro's long-term objective of improving customer choice. Energy Probe submits that an objective of restructuring should be to allow customers who do not think that they get value from Hydro's DSM effort to opt out of its costs.

Recommendation:

44 **Hydro should continue its policy of promoting energy management through a market-driven strategy rather than one reliant on cash incentives** (Argument, page 95).

One method available to Hydro of reducing wasteful electricity consumption while improving customer choice, reducing customer bills, and advancing sustainable development is to discourage bulk metering. Individual metering of apartments results in a reduction in energy use of 30% or more. There are about 900,000 bulk metered residential suites in Ontario with a total annual electricity consumption of about 5.9 Twh, which is over 4% of forecast 1994 primary demand. However, Hydro cancelled a program to encourage individual metering in 1993.

One of the reasons why Ontario Hydro cancelled its program to move away from bulk metering was due to problems with building codes. Hydro is spending $1 million over 1994 and 1995 influencing building codes: Energy Probe recommends that Hydro direct its building code efforts to identifying and eliminating barriers to individual metering, and report to the Board at HR 23 on its findings and progress.

Recommendation:

45 **Hydro should formulate a plan in conjunction with the municipal utilities to take advantage of the potential energy savings due to individual metering, using Hydro's regulatory authority over municipal utility capital budgets if necessary** (Argument, page 97).

46 **The OEB should recommend that the government ensure that building codes and regulations do not prevent individual metering of apartments and commercial suites. Hydro should work to identify and eliminate barriers to individual metering, and report to the Board at HR 23 on its findings and progress** (Argument, page 97).

CHAPTER SIX - RATES AND COST ALLOCATION

Experimental/Optional Rates

These rate proposals serve to maintain Hydro's existing customer base and prevent stranding of Hydro's assets. It is Energy Probe's understanding that the load retention rates are interim in nature, not desirable in the long term, and necessary for Hydro to carry out its longer term objectives regarding restructuring. Given this, Energy Probe accepts Hydro's 1995 rate proposals regarding discriminatory pricing as a necessary evil, without which Hydro would lose sales and the power system as a whole would lose value. Energy Probe regrets that Hydro's financial situation has come to this, and that action was not taken years ago to prevent this outcome, but given the current situation, the immediate alternative is worse.

Special deals would become unnecessary if competitive changes were made: everyone would buy at the marginal cost and everyone would get the discount.

While Energy Probe has long held concerns about Hydro's monopoly, and Energy Probe now sees a monopoly pursuing the most egregious type of monopoly pricing in the interests of buying time until a decision can be made, these practises are desirable in 1995 if they facilitate the move to a fairer system in the near term.

The Board should note that Energy Probe would not support the 1995 rate proposals in the absence of Hydro's expressed intention to move towards real change in the near future. Otherwise, with captive customers receiving less protection from society than those prepared to leave the province or self-generate, Energy Probe would view Hydro's actions as the worst abuse of monopoly power, and indeed these rates are a failure in terms of transparency, disclosure and equal access. However, Energy Probe does not believe the Board would be assisted this year by arguments on how to perfect the 1995 special rate proposals for future ratepayers. Energy Probe submits that approval be given for the 1995 rate year only, and that the appropriate test for evaluating the rate proposals is the extent to which they ensure Hydro's short-term survival and provide the Corporation with a window in which in which to identify the fundamental problems with the existing electricity structure in Ontario, with a view towards correcting it in the very near future. That said, if the time line for change is as tight as Hydro says, there is no reason to extend these rate options beyond 1995, since Ontario could be on its way to a competitive system by that time.

Energy Probe recommends that a full review of Hydro's rate structure be convened soon, and that no decisions be taken in the interim.

Energy Probe notes that Hydro is not seeking approval for inclusion of environmental externalities in its pricing at this time, but supports Hydro's exploration of this area.

Recommendation:

47 Hydro should offer no special, experimental or optional rates beyond the 1995 rate year, and if it wishes to, the issue must come before the OEB regardless of whether Hydro increases rates for 1996.

CHAPTER SEVEN - COSTS

As it considers Energy Probe's submission for costs, Energy Probe wishes to draw the Board's attention to the quality of its intervention and its understanding of the issues. It also wishes to draw the Board's attention to the quality and judicious use of its counsel, to the quality and originality of the argument submitted, and to its recommendations and their financial implications.

Energy Probe depends overwhelmingly on voluntary financial support from concerned individuals and from the sale of its products and services. Its voluntary supporters do provide Energy Probe with the core support required to maintain its research and administrative infrastructure and it does provide advance funding for all staff costs apart from counsel and consultants, and in small interventions is often able to finance these costs as well. But Energy Probe's supporters are otherwise incapable of maintaining an annual Ontario Energy Board presence. Without a full recovery of its costs, Energy Probe's participation is jeopardized. Given the value of its intervention, and the fact that Energy Probe is acting only in the public interest, without pecuniary purpose, Energy Probe urges the Board to award 100% of its costs.

EXECUTIVE SUMMARY OF THE GREEN ENERGY COALITION

INTRODUCTION

In the Minister's reference letter of February 16th the Board has been asked to comment on the efficacy of Hydro's restructuring to date and the objectives being pursued through that restructuring.

Hydro's president, Dr. Kupcis agreed that the three main objectives of restructuring were to achieve competitive rates, improved financial performance and to foster energy efficiency and sustainable development.

There is little to object to in this list. However, Hydro appears to have pursued the first objective at the expense of the latter two. They have sought to achieve the short term objective of lower rates at the expense of the two longer term objectives on the theory that Hydro must retain its load and survive if it is to be in a position to get its financial and environmental house in order. The GEC submits that Hydro has fundamentally misdirected itself. In the absence of solid analysis Hydro has overreacted to the competitive rate level concern, and in so doing has exacerbated the problems it faces in regard to financial performance and sustainable development.

Sustainable Development is about not burdening our children either ecologically or economically. In either manner we would be impairing their opportunities. Hydro is impairing our children's opportunities by forestalling the collection in rates of costs which offer no associated benefit to future subscribers, by setting rates and budgets at arbitrary levels and thereby creating a false need to forego cost-effective conservation and equipment maintenance, by restructuring to focus on the near term bottom line rather than longer term least cost objectives, and by placing attainment of identified sustainable development objectives on the back burner.

There is nothing wrong with Hydro's intent to harness competitive forces and impose difficult targets to foster cost efficiency if these efforts are crafted carefully to avoid sacrificing the critical longer term objectives of sustainable development. The two can co-exist but Hydro has suggested that we must choose between them. This is a false dilemma.

This Board has long recognized its duty to guard against intergenerational inequities when it wears its rate setting or reviewing hat. It should do no less in its review of Hydro's broader strategies.

1.A. The Objectives of the restructuring

THE LIMITATIONS IN THE MINISTER'S REFERENCE RESTRICT FULL REVIEW OF HYDRO'S 1995 PLANS AND OF THE EFFICACY OF THE RESTRUCTURING.

We respectfully submit that the Board must advise the Minister that given Ontario Hydro's acknowledgement that its restructuring to date has been affected by its view and desires for the future, the Board's review has been hampered by the limitations in the reference. Accordingly, the merits or demerits of the restructuring done to date cannot be assessed completely as such an assessment would require consideration of the likely or desirable end point.

1.A.1. Corporate Mission

HYDRO'S IDENTITY CRISIS -- SUSTAINABLE DEVELOPMENT OR SUSTAINING THE UTILITY?

The GEC submits that Ontario Hydro's new corporate mission "to help Ontario become a world leader in developing an energy efficient and competitive economy and a leading example of sustainable development" is both laudable and appropriate. However, it also appears to be little more than rhetoric.

Hydro is quick to point to vague promises of its commitment to sustainable development, energy efficiency and customer service while it offers special rates to shore up smokestack industries and expects its captive customers to kick in for the discounts without any binding or fully informed public review. Meanwhile it has put an admittedly arbitrary cap on energy efficiency spending. Hydro's motivation is obvious -- it is desperate to avoid loss of loads that help pay for fixed costs. But (as discussed under Special rates and Special Deals) Hydro has not measured even the direct electricity production emissions implications of its marketing strategy with any environmental ruler.

Further, Hydro has yet to decide if Sustainable Development means it does or does not hold any responsibility for fostering sustainable activity in the economy overall as opposed to a narrower goal of energy efficiency without regard to the activity being considered (see discussion below under special rates). Thus far Hydro is bending over backwards to respond to a perceived short-term crisis without first clarifying its basic mission.

The problem appears to find its roots in the Task Force on Change. The Task Force clearly focused on sustaining the utility rather than sustainable development.

1.A.2.(a) Task Force Process - Terms of Reference

THE TASK FORCE FAILED TO ADDRESS ITS MANDATE -- ENERGY EFFICIENCY AND SUSTAINABLE ENERGY DEVELOPMENT

The Report of the Task Force on Change recites the task force's mandate which is to devise a strategy to meet the goal:

> To make Ontario become a world leader in energy efficiency and competitiveness in accordance with the principles of sustainable development.

Despite this lofty mandate, the report (Exh. 1.1.2) says little if anything about either sustainable development or energy efficiency. Instead it focuses on narrow financial efficiency -- a worthwhile goal but a far cry from sustainable development.

Our observation is corroborated by the evidence of the PWU witness, Mr. Kelly, who sat on the task force, when he noted that sustainable development did not form part of the Task Force's deliberations.

But as noted by Hydro's chairman:

> ...the movement to sustainable development is not something that you can kind of defer until everything else is fixed up. It is something that we need to integrate into the culture and the management processes of the organization during this period of change. It will take time. And the individual tradeoffs we make will be affected by their financial implications from time to time.

Perhaps to remedy the Task Force on Change's oversight with respect to its primary mandate, Hydro commissioned the Task Force on Sustainable Energy Development (TFSED). But the damage was done. The TFSED was convened after the corporation had de facto adopted the strategies favoured by the Task Force on Change including the 1.5% cap on energy efficiency spending and the rate cap itself, both of which are noted by the TFSED to be in conflict with sustainable development.

1.A.2.(b) Task Force Process - Recommendations

> **TRANSPARENCY IS ENHANCED BUT A LACK OF ACCOUNTABILITY AND A NON-RESPONSIVENESS TO RISK PERSISTS**

The transparency achieved by the business unit structure accompanied by operating statement and balance sheet reporting has obvious attraction -- and on its face clarity can only enhance decision-making. But two related problems emerge: first, there is still no accountability for risk in capital planning and insufficient accountability for operating time-frame cost-effectiveness, and second, the business style approach may elevate short term financial performance at the expense of longer term social goals.

The test could be formulated as: How will restructuring help Hydro to make the right decision the next time it faces a major capital modification for a nuclear plant?

As discussed below transfer pricing will not regulate capital decisions.

The internal structural change does not seem to address this problem. Hydro still gambles with someone else's capital. The balance sheet and operating statement of a business unit may be slowly eroded by bad capital decisions

but it will not impact next year's executive compensation. Conceivably the next steps in restructuring could constrain such activity if assets in the form of capital modifications have to be supported by added equity from private investors -- but we will have to await Hydro's next move to judge that scenario.

The Environmental Assessment Act has not been applied to these types of decisions.

The public is left to rely on the good judgement of Hydro's senior management and board. There is nothing new here. If that approach hasn't worked in the past, why do we expect it to do so now? Potential privatization is unlikely to solve this problem -- no one is lining up to buy Hydro's nuclear plants or invest in their restoration (and this option is beyond the scope of this hearing in any event). Regulation is the remaining option.

In short, while transparency will undoubtedly assist management in controlling the business units, the costs of bad decisions by senior management and the Hydro board are still largely externalized to ratepayers and future generations. The changes to date primarily serve short term internal accountability goals -- external accountability for long term decisions remains the central problem.

WITHOUT SAFEGUARDS, THE RESTRUCTURING MAY WORK AGAINST LONG TERM GOALS SUCH AS SUSTAINABLE DEVELOPMENT

A second major and related concern with the restructuring is its potential to bias decision-making in favour of near term goals at the expense of longer term societal interests. Operating statements and balance sheets create a focus on performance in the year, a focus which could compete with Hydro's commitment to intergenerational equity and sustainable development.

The only mechanism offered by Hydro for incorporating long term goals into its decision making is IRP.

IRP is needed and overdue

Our concern is that without long term goals refined through adequate process and enforced independently there is a risk that the focus on the bottom line may be unduly dominant.

The ES&E group is somewhat ahead of other parts of Hydro in preparing for IRP. Because of the corporate level process of discussing IRP, developing definitions and plans to consult with the public, the process of getting IRP in place is expected to be slow. Mr. Fox acknowledged that the corporate IRP process will not likely be in place until 1996. This is in rather stark contrast to the few months it took to implement the financial and corporate restructuring once the Task Force on Change was complete. Such lethargy with respect to a process which has least cost and environmental goals as its basic purpose is unacceptable to the Coalition.

Hydro seems focussed on positioning itself for a competitive electricity sector but has lost sight of the need, even in a competitive world, for some rules of the game (and someone to play referee). IRP can provide a basis for some of those rules, particularly those that concern themselves with sustainable development and energy efficiency.

A strong environmental watchdog is needed within Ontario Hydro

In addition to highlighting the need for IRP and regulation, the new regime highlights the need for a strong environmental protection group within Hydro to curb the business tilt against sustainability on a day to day basis.

The Board should note that the restructuring (apart from the mission statement itself) does little to increase Hydro's accountability for financial matters and nothing to increase Hydro's accountability for non-financial items while at the same time increasing pressures to compromise societal long term goals.

The Board should recommend to the Minister that in light of Hydro's restructuring, the need for regulatory oversight of Hydro's capital program in its entirety is now of increased importance and urgency.

The Board should recommend to Hydro that it obtain IRP capability as a top priority.

The Board should recommend to Hydro that it strengthen the role and capabilities of its environment group to counteract the conflict with sustainability concerns due to the bottom line focus and the decentralized structure.

1.A.3. Corporate Strategy (sustainable development)

The bulk of our comments appear above under 1.A.1, 1.A.2.
In addition we note the testimony of Mr. Torrie sponsored by Northwatch. He applauds the new mission but laments the lack of tangible progress and the failure of Hydro thus far to develop operational principles and detailed goals, criteria, and tests to guide the fulfilment of the mission and operational principles.

Hydro should develop a detailed list of principles and operational guidelines it will follow in pursuing sustainable development and develop the tests it will apply to assure compliance and success in this regard for presentation in the next OEB hearing.

1.B.2. The process of restructuring (allocation of assets, costs, responsibilities)

THE GRID UNIT REMAINS TOO CLOSE TO THE GENERATING UNITS

Dr. Kahn stressed the need for fairness and in particular equal access to information if the efficiency of competition is to be achieved. We submit that Dr. Kahn's conclusion becomes ever more important as Hydro's restructuring proceeds and the role of NUG grows as the surplus recedes.

Greater separation of the Grid from the GBU's would be desirable but ultimately the best solution may mean corporate separation, a matter beyond this hearing.

THE ROLE OF OHE IN RELATION TO THE CORPORATION IS CONFUSED

Basic issues remain within the limited organizational restructuring. The structure needs to be reflective of Hydro's various tasks and goals and there has yet to be a clarification of some of those tasks and goals, for example, the role

of OHE and its relationship to the other business units. Is OHI a broker or a risk and profit centre? Is OHT a service provider to business units or is it a corporate vehicle to serve the mission of sustainable development? These examples are discussed below under Chapter 3.

1.B.4. Capital Reductions

HYDRO FAILED TO APPLY IRP PRINCIPLES TO ITS CAPITAL AND CAPACITY REDUCTION DECISIONS

Hydro agreed that application of an IRP approach to the capacity cuts might have gotten a different result.

HYDRO WAS UNDULY INFLUENCED BY AECL

Dr. Kupcis agreed that of the options considered in the capacity and capital reduction effort the biggest capital cost reductions and operating cost reductions were associated with the options that included shutdown of both units 1 and 2 at Bruce A and of the entire Heavy Water plant. He also acknowledged that the sale of heavy water was an important factor in electing to forego that option. In the study itself under the heading "Key Findings" and "Risks" reference is made to the fact that the significant savings of the option were at risk because "OHN's most recent advice is that the sale of heavy water may be dependent on the continued operation of the heavy water plant."

One might innocently assume that the reference in the Capacity Reduction Study meant that the BHWP would be needed to capitalize on the AECL-KEPCO related heavy water sale or others in future. However, in cross-examination of Mr. Anderson it became clear that the inventory required to satisfy Hydro's internal needs would be on hand as of December 1993 and the heavy water for the Korean sale could be found by using the water from Bruce 2 and either producing 300 MG from the BHWP in early 1994 or obtaining a further 650 Mg by retiring Bruce unit 1. The previously undisclosed hitch was that AECL insisted on Hydro continuing to run the BHWP to support AECL's hopes of marketing CANDU reactors.
We can only wonder whether Hydro's Board understood the true basis for the reference in the report and the outcome -- that Hydro customers are taking on the added costs of maintaining Bruce 1 and the BHWP to shore up AECL.

We recommend that the option of further capacity cuts (specifically Bruce unit 1 and the BHWP) be revisited by Ontario Hydro utilizing an IRP methodology. Such review should consider the continued decline in load and the option of abandoning load building efforts, and placing greater reliance on early DSM and greater reliance on NUG should load grow in future.

1.B.5. Staff Reductions

Examination of the success and adequacy of programs - costs

The process in so far as it relates to unionized staff is a fait accompli and further change is constrained by the collective agreements. One possibility for further reductions is discussed under OHI, below.

- impact on Hydro and on service

As discussed below under Grid, the cuts in OM&A have delayed maintenance and this will reduce service and raise costs.

The PWU policy witnesses also noted an increased level of overtime to the extent that it may be counterproductive.

1.B.6 Will the new organizational structure achieve the objectives of the restructuring?

It would appear that, to date, Hydro has chosen to focus on the first two (rates and financial performance) of the three objectives of restructuring -- not surprising given that the Task Force on Change managed to overlook the third and their mandate to promote sustainable development.

While it is undoubtedly true that Ontario Hydro can only be an agent for sustainable development if it survives financially, the notion that environmentally responsible behaviour must be postponed in favour of financial objectives must be rejected. To accept that logic would be to suggest that only rich corporations and countries need foster sustainability, an unsustainable plan if ever there was.

Thus, the answer to the question -- Has Hydro's restructuring achieved its goals? -- must be answered in the negative for one of the three goals, sustainability.

As to competitive rates and improved financial performance it would appear that Hydro has confused low current rates with sustainable competitive capability and financial performance (see for eg. 1993 writedowns).

This is not to suggest that the restructuring has been in vain, rather that it is insufficient by itself and as currently implemented.

Specific concerns with Hydro's inadequate response to its mission statement and with the particular organizational form of restructuring are discussed above and in section I.B.7.

I.B.7. Implications of the restructuring on current regulatory processes

HYDRO WAS DUE FOR CHANGE BUT HYDRO'S RESPONSE HAS EMPHASIZED THE NEED FOR A DISCUSSION OF THE REGULATORY CHANGE THAT MUST ACCOMPANY RESTRUCTURING AND ANY SECTORAL CHANGE

THE CURRENT REGULATORY REGIME IS NOW ENTIRELY INADEQUATE TO COPE WITH THE ISSUES.

Throughout this hearing Hydro claimed to be marching to the drum of "competition" but the drum beat, to the extent we hear it, is somewhat distant and has thus far been muffled by secrecy. Hydro's response to the drum beat it

perceives takes the form of secret deals and massive internal changes that happen without prior public review. Moreover, the current review demonstrates that Hydro's response to perceived competitive pressures is making it steadily less accountable to the public.

We do agree that if Hydro is to persist, it must undergo reform. Some of that reform is before us in this hearing, much of the potential reform we must hope to consider in a subsequent process. Given that we have, and will continue to witness significant change in regard to Hydro, we are particularly concerned about the urgency of the need Mr. Strong has identified for Hydro to be "more open".

We fear Hydro's forthcoming decisions, made in continuing response to the crisis of impending competition that it perceives, will shore up the worst of the "old Hydro" if those choices are made behind closed doors in the same way that restructuring and the special deals have emerged.

While 20 year contracts with Dow do reduce the options somewhat, it is not too late for Ontario to benefit from a meaningful look at the larger issues facing Hydro and, as we will discuss below, there are compelling reasons for this Board to urge the Minister to initiate that process immediately.

Our view of that urgency is strengthened by two observations:

First, the observations of Hydro's Chairman, President, and Chief Financial Officer to the effect that the desirable regulatory structure must be related to the desirable sectoral structure. This suggests that we not attempt to fix the problems created by the lack of a suitable regulatory structure without a simultaneous discussion of the context, and that we not allow Hydro to decide the question of structure without a discussion of regulation and the optimization of the public good. In other words, every step Hydro takes forecloses options in all related matters.

Second, our view that the H.R.22 review has demonstrated beyond a shadow of a doubt that the current regulatory regime is now entirely inadequate to cope with the issues.

We certainly mean no disrespect to this Board in these comments -- quite the opposite. We believe the public would be well served by this Board reviewing the larger issues of sectoral structure and regulation. We also believe that this Board has played a useful role in the past by giving the public access to information and by its comments on that information. However, it now appears (perhaps ironically) that the "new transparent Ontario Hydro" has effectively sidestepped the limited review powers of this Board. Quite apart from the Minister's limitations in the reference and last years' exemption that have eroded the value that could conceivably be achieved in the OEB process, Hydro has demonstrated this year that it has become increasingly opaque to the limited review traditionally conducted by this Board.

The examples of this enhanced opacity are too numerous to attempt a comprehensive list, but some of the highlights include:

Financial:

The $3.5 million writedown was accomplished without a public hearing and without consultation.

OM&A and Capital Budgets:

The rate cap itself which, given the political cost to Hydro of a retreat, limits the outcomes which could flow from the Board's review. (see below under Rates)

The business planning cycle which has been decoupled from the hearing schedule leaves us without any detailed or reliable business unit budgets. For example no 1995 DSM plans to support a detailed budget, and no 1994 OHI business plan and 1995's hasn't ben developed.

The lack of forecast updates cements the fact that the rate cap is inflexible by disabling any possibility of a detailed assessment of costs versus rates outcomes.

The new mode of presentation unaccompanied by any attempt to systematically relate current plans and budgets to those under the prior organizational structure (adjusted for the writeoffs) militates against any rigorous comparisons to past business periods.

The capacity and capital spending cuts are unsupported by analysis of the specific options chosen.

Secret costs and revenues are buried in various Hydro accounts (for example OHN offsets cobalt revenues from its costs). Thus this Board can never know if a marginal change in OM&A is due to increased or decreased efficiency or to changes in the secret offsets.

Rates and Rate Structures:

The secret deals with Suncor and the Dow/Polysar/Suncor consortium are anathema to meaningful public review.

Hydro's failure to disclose the Suncor and Dow deals in the H.R.22 pre-file despite the deals having been executed in December and February.

The special industrial discount rate proposals are largely premised upon anecdote and secret information. (see below under rates)

The general rate proposal seems to have been handed down on a tablet and no rigorous analysis is offered for the choice of the 1995 rate level or the freeze for the balance of the millennia -- we are expected to be content with Hydro's claim of a need for a "wake up call"

Sustainable Development and Energy Efficiency:

The DSM budget is admitted to be arbitrary but the promised IRP process was not made a priority to enable a more rational assessment.

DSM program information is not even pre-filed despite a history of strong intervenor interest in the topic.

The load building targets are also set based upon either vague or undisclosed information.

Hydro's true motivation for key sustainable development decisions such as the choice to keep Bruce unit 1 and the BHWP open are not disclosed in the prefile and we must pry out of Hydro's witnesses the undisclosed arrangements with AECL.

All of these shortcomings are in addition to the pre-existing failures of the process to enable meaningful public regulation (a matter excluded from this hearing) but do serve to emphasize that the time has come to address the shortcomings of the regulatory structure. In the language of the H.R.22 issues list, we do indeed "perceive deficiencies in the current regulatory processes resulting from the restructuring". Whether by design or faulty implementation, the restructuring has moved Hydro's information and decision processes out of phase from the annual review and the secrecy of Hydro's "customer focus" has, ironically, helped moved the utility out of reach from the public.

Hydro has acknowledged need for change in the regulatory structure. As Mr. Strong noted, the current situation is "a bit of an anachronism." which he clarified as meaning "the Board is advisory rather than, in the final analysis, truly regulatory".

The Board should inform the Minister that Hydro's restructuring and business direction renders the current regulatory framework outdated and inadequate, and that this issue must now be reviewed by the Government.

I.C.3. Asset writedowns in 1993

HYDRO HAS ABUSED THE OCCASION OF RESTRUCTURING TO POSTPONE RECOVERY OF COSTS, JEOPARDIZING BOTH FINANCIAL SOUNDNESS AND INTERGENERATIONAL EQUITY

Hydro's Chief Financial Officer agreed that the immediate effect of the writedowns is to lower the level of costs that must be charged to rates by hundreds of millions of dollars per annum.

Of course the debt associated with these past mistakes does not likewise disappear.

The net effect is a shift in the timing of the recovery in rates of the costs of the assets written off. Before the writedown Hydro had recognized the loss in value of certain assets and set them up as deferred and amortized assets

to be charged into rates over a fixed timeframe. Now the paydown of the debt is in management's discretion as part of its strategy to adjust Hydro's debt/equity situation.

Hydro management has exercised that discretion to lower near term rates by hundreds of millions of dollars. The inevitable result is that future rates must correspondingly increase. (Mr. Kupcis would argue that the alternative is that future cost efficiencies must be found to offset this, but surely Hydro would want to find those efficiencies in any event so the net effect is rates in future higher than they would otherwise be.)

The result is more pain for our children as writedowns move bad asset debt retirement from a near term cost commitment to a vague promise of financial health and a 60:40 debt ratio in the year 2000.

If management had written down these assets and then exercised its discretion to commit to collect the hundreds of millions on the same schedule, it could be argued that the writedown was simply a cleaning up of the books. Since it is explicitly acknowledged that the discretion has been used to lower rates it appears that more is at play.

In our submission the writedowns are motivated by near term rate level concerns and not simply by concerns of transparency and cleaning up the books, and certainly not by concerns about fairness.

II.A.3. Capital Budgeting process

Hydro indicates that it will employ a hurdle rate approach to restrain capital spending. However, the application of the rates will be restricted to cases other than where health and safety or something other than additional economic value for the corporation is at stake.

As to the bulk of investments that won't be caught by the hurdle rate, there is a concern that business leaders faced with a net income target will be tempted to try to capitalize costs and thereby substitute capital for near term bottom line expense.

Thus, even if the price dictates cost approach is embraced, there remains a gap in Hydro's budgeting approach when it comes to capital budgets, and the approach thus far does not ensure a least cost result.

Hydro acknowledges the need for an IRP capability but does not acknowledge its applicability to routine capital spending and cuts.

Hydro's decisions on routine capital expenditures and on capacity cuts are not controlled nor intended to be controlled by any of the new mechanisms such as hurdle rates, transfer pricing, IRP, or corporate performance measures and compensation incentives. In the absence of shareholder pressure to control such spending, Hydro should implement an IRP type mechanism that informs these decisions. The mechanism should gear the level of detail and public participation to the nature of the decision.

Hydro's decisions on capacity expansion or capital modification should employ a hurdle rate or discount rate appropriate to the risk of the particular technology.

II.B. Policy on transfer pricing

The inadequacy of the 1994 transfer pricing regime is readily acknowledged by Ontario Hydro.

Transfer pricing may improve for 1995 to give better signals for short term decisions but seems incapable of handling the longer term decisions, particularly capital decisions.

Thus transfer pricing is an inadequate approach to the very problems Hydro faces. Decisions to close plants early, to retube reactors or not, to replace or refurbish steam generators, to retire heavy water plants, to make major investments in pollution control equipment etc..

Further, as discussed in section A.2 of these submissions, transfer pricing is part of an approach that focuses attention on the annual bottom line, a focus that competes with long term optimization and sustainable development concerns. Indeed, it is the focus on the near term bottom line that is touted as the benefit of transfer pricing. This is not to suggest that implementing a regime to encourage operating time frame efficiency should not be done, but rather that implementation of such an proposal requires a simultaneous implementation of a regime to encourage long term efficiency and sustainability.

Transfer pricing does not include externalities. Any decisions based on transfer pricing will therefore be out of conformity with the corporate commitment to full cost accounting and with least cost solutions.

Hydro's witnesses acknowledged that an IRP like mechanism is required to address these capital and environmental issues.

II.C. Net Income Forecast

As acknowledged by Hydro's chief financial officer:

> ...one's view of financial soundness of the Corporation, I think, is impacted by your view of the future of the sorts of options that the Company might have to face...

Thus it should be acknowledged that our ability to comment on the adequacy of Hydro's net income target is impaired by the restriction in the Reference.

However, some aspects of the matter are clear regardless of the future one assumes.

It is abundantly clear that the writedowns have done nothing more than mask the true impact of Hydro's past bad decisions by apparently reducing the revenue requirement (see 1993 writedowns). Certainly the staff cuts may reduce long term costs if the potential savings aren't offset by the combined burden of the golden handshakes and any operating inefficiency and reduced performance due to reduced maintenance. Again, it is too soon to see clear results.

The question then becomes, should Hydro bank on the possibility of improved efficiency in the future to justify a low rate today?

Intergenerational equity forbids such speculation.

Absent the writedown the 1995 net income would be much reduced. The accounting slight of hand which postpones recovery in rates for Hydro's past mistakes should not obscure the reality. Hydro acknowledges it has reduced its rates by hundreds of millions of dollars without reducing the debt that the previously budgeted provisions (deferrals and amortizations) would have serviced.

The Board should inform Hydro and the Minister that Hydro's 1995 rate increase has been artificially reduced by the writedown and the rate level as set generates insufficient net income to offset an appropriate portion of the erosion in financial indicators due to the writedown. Accordingly, the budgeted net income is inadequate to avoid undue rate impacts on future subscribers.

The Board should also note the limitation on the Board and all parties to adequately consider the longer term aspects of financial soundness by reason of the restrictions in the Reference.

II.E.3. Depreciation -- Assets

Bruce Unit 1

The change in revenue requirement if Bruce Unit 1 is depreciated based upon an out of service date of January 1, 2000 would be an "average of about $40 to $50 million annually through 1999"

As discussed under OHN, the early retirement of Bruce Unit 1 is Hydro's current best estimate.

Depreciation expense should be increased by $50 million to account for the likely retirement of Bruce 1 in the years 2000.

II.G.1. Compensation, Benefits, Pay for Performance

The executive pay incentive proposal will take executive staff to a level 10% higher than the current pay level, 5% higher than the reduced level 9 years out of ten. The effect is a 10% increase in 1994.

It would appear that we are witnessing a bonus plan, not a plan which pegs base pay to performance.

The Board should recommend to Ontario Hydro that the combined effect of the various components of the incentive pay regime should not result in an overall increase of compensation beyond that deemed appropriate in light of factors such as inflation and rate constraints. Hydro should clearly distinguish overall increases in executive compensation from the restructuring of compensation. The purpose of the later should be to tie a greater proportion of compensation to attainment of corporate objectives, not to disguise compensation increases.

II.H. Corporate Performance Measures

The corporate level indicators proposed for sustainable development goals do not include any nuclear power related measures. Given the importance of the corporate level measures to corporate management's oversight and to executive compensation and the dominance of nuclear generation within Hydro we submit that this omission is indicative of two failures. First, the proposed CPM system fails to capture important indicators of sustainability. Second the omission suggests Hydro management, while beginning to recognize the problems of fossil fuels, has failed to understand the problems of nuclear power in regard to sustainable development. This suggests the persistence of the nuclear-has-no-problems thinking of the "old Hydro".

Also of note is the absence of any stewardship measure of acid gas emissions (SOX and NOX) other than compliance with regulations. This despite the Task Force on Sustainable Energy Development's charge to Hydro to move from compliance to leadership. The details of the greenhouse gas measure remain to be seen.

We submit that this Board should recommend that Hydro include measures of nuclear accident risk and radioactive emissions as well as acid gas emissions in its CPMs. Given that the effectiveness of these measures can easily be defeated by inadequate technical design, Hydro should be advised to consult with environmental groups on the design of the ecological measures and present them in H.R. 23.

II.I. Load Forecast

We note from volume 7, page 1264 that Hydro has failed to take account of its in-house energy efficiency program in its load forecast.

III.A.1 ONTARIO HYDRO ENTERPRISES -- OH Technologies

The new business strategy will require testing.

The director of OHT agreed that in order to avoid the worst of both worlds, ie. the overhead and staff costs of OHT plus the costs of other units contracting out for similar services, that uncompetitive groups within OHT had to be cut. To test the success of the strategy there will need to be a tracking of overall corporate R&D and technology expenditures.

As in other areas, secrecy is becoming the norm, but ratepayers are forced to fund the risks.

The question is: should ratepayers fund the risk-taking without information or choice? Hydro's witness felt it was a good gamble. Hydro misses the point.

There is a fundamental failure on Ontario Hydro's part to recognize the incompatibility of a public utility straying from its core task -- provision of energy services -- and embarking upon a strategy focussed on secret commercial deals when its ratepayers are denied both information and choice in regard to these investment decisions.

Sustainable development goals are not being met --

Nuclear research should be housed in OHN not OHT

The Task Force on Sustainable Development called for Ontario Hydro to shift its R&D focus from its present approach (largely nuclear) to Sustainable development technologies.

The targets proposed were 25% in 94, 50% in 95 and 75% by 96.

Of OHT's $79 million 1994 budget only $3 million is being spent on sustainable development initiatives.

A review of the revenue expectations suggests that OHT is really a technical arm of OH-Nuclear. This is exactly what the TFSED wanted to change, but apparently change is slow. Further, if generating business units are to be truly accountable for their costs, they should have to carry related technical support costs including all overheads within unit costs.

We recommend that nuclear research be conducted within OHN. This will free OHT to pursue sustainable development R&D and will cause OHN to internalize the costs of maintaining a nuclear research capability.

III.B. OH International

THE COSTS AND RISKS OF OHI ARE NOT APPROPRIATE FOR THE BENEFITS

Hydro identifies three benefits of OHI: staff training opportunities, profit, and fostering of sustainable development.

Mr. Strong advocates maintaining a "Surge Tank" of talent that will find training opportunities in OHI. But the reality of a surge tank is that either surplus staff and overheads are carried at the expense of ratepayers in the hope of foreign jobs, or needed staff are seconded and replaced by less talented people to serve the domestic customer.

Thus the benefit of staff opportunities may in fact be simply a cost burden compared to paring down the currently underutilized groups.

The maintenance of a "surge tank" will reduce the incentive for Ontario Hydro to downsize its construction and engineering capability and focus on small scale renewable and conservation strategies.

The second benefit claimed by Hydro is the obvious one, potential profit. But profit here means risk. Hydro is clearly contemplating speculative arrangements with sizable risk. As noted above, there is a fundamental failure on Ontario Hydro's part to recognize the incompatibility of a public utility straying from its core task -- provision of energy services -- and embarking upon a strategy focussed on secret commercial deals when its ratepayers are denied both information and choice in regard to these investment decisions.

The third benefit claimed is the fostering of sustainability. But as discussed below, Hydro is unwilling to give us the means to test this proposal.

OHI IS UNACCOUNTABLE FOR SUSTAINABLE DEVELOPMENT CONCERNS

Ontario Hydro's plans for major expansion of its international efforts are a serious concern to environmentalists due to Hydro's history of environmentally inappropriate planning and its tendency to focus on megaprojects which have been a failure for the first world and would appear to make even less sense for the more decentralized developing world in an era of sustainable development. We are not comforted by the annual report notes that "Ontario Hydro has the opportunity, through OHI Inc. to build, to rehabilitate and in some cases own major power stations throughout the world."

Hydro promises to try to foster sustainable development. However, with its poor track record at home, and its commitment to secrecy, we might be pardoned for being sceptical. Accountability mechanisms could help ensure win-win situations. In time, it might be possible to lengthen the leash, but trust must first be earned.

Full disclosure of all aspects of OHI ventures should be a minimum requirement that should be imposed on OHI and that OHI should require in all its contracts with partners and hosts.

The Board should recommend against Hydro maintaining added staff and overheads as a surge tank for OHI, given the rate constraints Hydro suggests.

The Board should recommend against an expanded role for OHI until such time as there exists a regulatory framework that ensures no undue burden to customers, and a fostering of sustainable development.

Freedom of information should be a prerequisite for all OHI deals and a requirement in all contracts OHI enters.

IV.A. Grid System Business Unit

IV.A.2. Transfer Pricing - mechanics

Hydro acknowledged major weaknesses in the 1994 transfer pricing regime but was only able to provide a preliminary proposal for the 1995 transfer pricing regime well into the hearing. Further, Hydro intends to achieve agreement internally on the 1995 regime when Grid takes it to the other business leaders in July. Accordingly, we have a very preliminary proposal that may change quickly and that may be effectively fixed before this Board reports.

In light of that, we have focussed our attention on the more general problems inherent in transfer pricing. See above under section II.B. -- Policy on transfer pricing.

GEC submits that the Board should comment on the fact that the timing of Hydro's 1995 transfer pricing policy development effort effectively precludes meaningful OEB review.

IV.A.3. Business Plan 1994-1996

The Grid Unit plans to reduce maintenance expenditures to lower near term costs. However, the effect will be to shift costs from today into the future.

This is another example of the intergenerational inequity inherent in Ontario Hydro's 1995 plan. It also demonstrates that price does not necessarily drive costs, it may simply shift them.

Further, delaying maintenance, to the extent it shifts preventive maintenance to breakdown maintenance increases customer costs and "generally" increases maintenance costs.

Thus price may not simply drive Hydro to shift rather than lower costs, it may actually drive up costs!

IV.A.4. Revenues

Conservation-Based Export Sales

Part of Hydro's secondary sales strategy is to pursue "Conservation sales". However, upon close examination Hydro seems to be proposing fossil sales dressed up in sheep's clothing.

Mr. Strong suggested that the merit of the proposal was <u>not</u> in a likelihood of it funding efficiency that was more expensive than avoided cost. He agreed that the efficiency was cost effective for Hydro and therefore should be achieved regardless of the export opportunity. He suggested that the benefit of the export was to produce revenue to fund the acquisition of the efficiency at a time when Hydro might otherwise not have the capital to do so. This seems to suggest that without profits from coal burning Hydro will not find a way to get all cost-effective efficiency. Hardly a commitment to sustainable development.

It is hard to see how exports of coal-fired power (Hydro's marginal resource) will have anything other than a net result of increasing the otherwise capped U.S. emissions.

In its decision-making Hydro has yet to properly count the externalities of coal-fired power (so long as Ontario Hydro is below its regulatory cap).

In the result Hydro is not proposing to accomplish any incremental conservation. Hydro is simply proposing to degrade the environment for financial profit.

IV.A.3. Grid Costs (see IV.A.1)

IV.B. Nuclear Business Unit

Heavy Water Production

The Bruce Heavy Water Plant (BHWP) is being kept open at half capacity, since January 1, 1994 purely to fulfil an export contract for 900 tonnes of heavy water with the Korean Electric Power Corporation (KEPCO). Ontario Hydro should have competed with Atomic Energy of Canada Ltd. (AECL) to receive the entire 1200 tonne contract.

The GEC recommends that in future, OHN should compete with AECL in any export sale of heavy water or other commodities, technology or expertise.

Ontario Hydro did not need to keep the BHWP open in order to fulfil the contract with KEPCO. There are 650 tonnes of heavy water available from the Bruce 2 reactor, which will be shut down in 1995, as well as 650 tonnes from the Bruce 1 reactor which will be shut down in 2000. If this heavy water, in combination with the Future Use inventory and the Operating Reserve was not enough, the BHWP could have been kept operating at full capacity for a short period of time, and then shut down, resulting in large savings. The GEC believes that the decision was largely premised upon the speculation that AECL will achieve future external sales of reactors and heavy water -- a premise that is highly risky. Ontario Hydro ratepayers should not be expected to foot the bill for the commercial objectives of a federal crown corporation.

The GEC recommends that the service life of the Bruce Heavy Water Plant should not be extended based on speculative forecasts of future heavy water sales. The Plant should be shut down immediately.

Bruce A Nuclear Generating Station

Despite extremely poor performance at the Bruce A Nuclear Generating Station -- in particular, Units 1 and 2 -- Mr. Anderson has repeatedly raised the possibility that Ontario Hydro will reconsider its decision to not retube those units. The Bruce A Station as a whole had a 33% net capacity factor (CpF) in 1993. Bruce Unit 1 and a CpF of 45.28% in 1993, and Unit 2 was 40.24%. In addition, Units 1 and 2 are subject to unique technological problems, including the fact that Spacer Location and Repositioning (SLAR) cannot be applied to Unit 1. There is also no "creep allowance", for the elongation of fuel channel tubes in Unit 1. In addition , "up to 28" pressure tubes will have to be replaced in Unit 1, at a cost of at least $600,000 each before year 2000, and up to 86 fuel channels will require "remedial work" before 2000.

Given the poor performance record of the Bruce A Nuclear Generating Station, and the unique technological problems to which it is subject, and the uncertainty about the decision to not retube units 1 and 2, the GEC recommends that the OEB hold a special hearing to address the viability of the Bruce A station, and to examine the advisability of ongoing rehabilitation and capital expenditures, and the costs and benefits of early shutdown of all units. In particular the Board should examine Ontario Hydro's assumptions for the end of service date for Bruce Unit 1.

Evidence of the Power Workers' Union

Under cross examination by Board Staff, IPPSO, Ontario Hydro, a multitude of significant methodological and mechanical problems and errors were discovered in three studies presented in evidence by the Power Workers'

Union. The studies included: Evaluation of Bruce 'A' N.G.S. Alternatives, by Dr. George Chuchman (Exh. 1.2.3, tab C); Economic Evaluation of the Decision to Mothball Lennox Units 3 & 4, by Beak Consultants Ltd. (Exh. 1.2.3, tab D); and Economic Evaluation of the Decision to Mothball Lambton Units 1 & 2, by Beak Consultants Ltd. (Exh. 1.2.3, tab E). The latter two studies were defended by Ms. Fisher and Dr. Eckel, of Beak Consultants Ltd..

Given the extensive and serious nature of many of the problems identified with the three Power Workers' Union studies on alternatives to the shutdown of Bruce 2 and the Lennox and Lambton units, the GEC recommends that the Board should place no reliance upon the findings and conclusions of the Power Workers' Union studies.

OM&A and Capital Spending

It is clear that there remains a high level of controversy over the appropriate levels and timing of nuclear OM&A, sustaining capital, and one-time capital expenditures. At issue are questions of asset harvesting, financial restraint, appropriate employment levels, nuclear performance, and ultimately, public health and safety. It should be admitted openly that nuclear power forces Ontario Hydro to make trade-offs in these areas. This dilemma is a fundamental reason why the GEC believes that nuclear power at Ontario Hydro should be phased out as soon as possible.

The GEC recommends that Ontario Hydro Nuclear should produce a revised and more realistic estimate of total OM&A expenditures, with a detailed rationale, broken down by station and year, for the next decade.

Recommendation: The GEC recommends that Ontario Hydro should produce a revised and more realistic estimate of total capital expenditures, with detailed rationale, broken down by station and year, for the next decade.

Recommendation: The OEB should insist on rigorous performance parameters for OHN's Business Improvement Program to ensure that nuclear costs are reduced, at the same time that performance is improved.

Nuclear Safety Vs. Financial Constraint

The CEG is concerned that Ontario Hydro may be making trade-offs between nuclear safety and budget, and that the "bottom line" focus of the new business structure may exacerbate this problem. The move to delay the vacuum building test at Darlington in order to avoid a conflict with a Pickering outage is an example of how cost reduction can affect safety concerns. Corrective maintenance backlog at Bruce B has worsened, with only mediocre or marginal improvement at other stations. There remains a significant backlog of AECB action items. Ontario Hydro has refused to make complete Peer Evaluations available to the public, despite the fact that they are being used as a primary safety and performance measure. Like Significant Event Reports, the Peer Evaluations can be "depersonalized" simply by blacking out individual names.

The OEB should advise Ontario Hydro senior management and the Minister that there appear to be trade-offs being made between nuclear safety and budgetary concerns, and that this problem may be exacerbated by the new "bottom line" focus.

In order to render its safety programs transparent and accountable, OH Nuclear should make depersonalized Peer Evaluations available in full to the public.

CANDU Owners' Group (COG) Funding

Ontario Hydro is presently paying about $95 million per year to the CANDU Owners' Group (COG), about 90% of which is then transferred to Atomic Energy of Canada Ltd. (AECL). The agreement which sees this massive outflow of funds deserves renegotiation prior to its end on April 1, 1997. Mr. Anderson was unaware of instructions from Mr. Strong to reexamine the COG agreement, in support of recommendation 8.2 of the Task Force on sustainable Energy Development, which suggested that the "...CEO/COO request the General Manager Nuclear and the President of OHT, to take immediate steps to renegotiate the COG agreement with AECL and the other partners with a view to decreasing Hydro's contribution."

The GEC recommends that the OEB ask that the COG MOU be made available to the HR 22 hearing panel only, in order to better inform the panel's deliberation in this matter.

Recommendation: Hydro should be instructed to stop payments which flow to AECL under the COG agreement. Any damages payable to AECL could be set off against outstanding negative payback under the Pickering Payback Agreement (see below).

Recommendation: The GEC recommends that the OEB demand a clarification from Ontario Hydro management of their present position on COG funding, and future intentions on this matter.

CNA Membership

In February 1994, Ontario Hydro decided that it would rejoin the Canadian Nuclear Association (CNA) -- Ontario Hydro had ended its 30 year membership in CNA in 1992. In 1992, at the time of Ontario Hydro's withdrawal from the CNA, it paid a combined annual membership fee of $42,700.00, and a "Public Information Program Contribution" of the same amount -- $42,700.00, resulting in a total contribution in 1992 of $85,400.00 When Ontario Hydro rejoined the CNA in February of 1994, it paid a membership fee of $70,000.00 (Int. 4c.15.13) -- an increase of about 60% in the membership fee after an absence of one year. It is meaningless for Hydro Chairperson Maurice Strong to say that "...no corporate monies would be directed towards the CNA's Public Information Program or corporate advertising program" (Int. 4c.15.13) -- Hydro's enlarged "membership fee" will simply free up other CNA monies to be used for its propaganda campaigns.

Government policy makes conservation and renewable energy the top energy priorities for the province, therefore Ontario Hydro's withdrawal from the CNA was a potent symbol of the "new Ontario Hydro". The rejoining of the CNA is an equally potent symbol of the bankruptcy of the ostensible energy priorities of the government and Ontario Hydro.

The GEC urges the OEB to advise against Ontario Hydro's membership in the CNA, and further that Ontario Hydro should clarify its policy of membership in "advocacy organizations".

Decommissioning Fund

At its June 1994 meeting the Ontario Hydro Board of Directors apparently approved in principle the creation of a segregated Decommissioning Fund, as opposed to the previous accounting provision, which saw the monies used for other purposes in lieu of borrowing. While this is a positive step, there remain a number of serious problems and unresolved questions.

First, there is reason to think that Ontario Hydro has underestimated the costs of decommissioning and waste management. Second, the GEC believes the entire cost of decommissioning and waste management should be prepaid into the Fund, in case nuclear accident or financial disaster at Ontario Hydro jeopardized its ability to pay. Third, there is the unresolved question of how quickly the accrued decommissioning costs of $1.265 billion will be put into the fund.

The GEC recommends that the OEB call for Ontario Hydro to study the option of prepayment into the Decommissioning Fund of total decommissioning and waste management costs, and that the study be filed in HR 23.

The GEC recommends that accrued decommissioning and waste management provisions of $1.265 billion be immediately deposited in the Decommissioning Fund.

Tritium in Drinking Water Standards and the Question of Environmental Leadership

On May 27, 1994, the Ontario Advisory Committee on Environmental Standards (ACES) released its report entitled A Standard for Tritium: A Recommendation to the Minister of Environment and Energy (Exh. 4.2.8). ACES recommends a dramatic reduction permissable levels of tritium in drinking water. The ACES recommendations would also disallow the annual averaging of tritium levels in drinking water that has been the practice to date. If the recommendations were adopted, current operating practices at Ontario Hydro nuclear stations would result in ODWO's being exceeded at Water Supply Plants in the vicinity of the Pickering and Bruce Nuclear Generating Stations.

Ontario Hydro has also stated that it does not support the recent International Joint Commission (IJC) recommendation that "Governments incorporate those radionuclides which meet the definition of persistent toxic substance in their strategy for virtual elimination" (Seventh Biennial Report on Great Lakes Water Quality, IJC, February 1994, recommendation 12, p. 4) (Int. 4c.15.3).

When asked if it supported a policy of zero discharge for persistent toxic chemicals (which by the IJC definition would include many radionuclides), Ontario Hydro responded that "The term "zero discharge" when defined, will be met by the corporation" (Int. 1b.15.10). The GEC believes that zero means zero. The Municipal/Industrial Strategy for Abatement (MISA), in which Ontario Hydro has participated, has defined "zero discharge" (like the IJC) as "... no inputs of specific persistent toxic substances into the ecosystem."

The GEC recommends that Ontario Hydro take a "environmental leadership" position on the question of tritium pollution from its nuclear generating stations and the Tritium Recovery Facility, by supporting the recommendations of the Ontario Advisory Committee on Environmental Standards (ACES) in its report entitled A Standard for Tritium: A Recommendation to the Minister of Environment and Energy.

The GEC recommends that Ontario Hydro take an "environmental leadership" position by offering public support for the International Joint Commission recommendation that "Governments incorporate those radionuclides which meet the definition of persistent toxic substance in their strategy for virtual elimination" (Seventh Biennial Report on Great Lakes Water Quality, IJC, February 1994, recommendation 12, p. 4) Recommendation: The GEC recommends that Ontario Hydro take an "environmental leadership" position by supporting a policy of zero discharge for persistent toxic chemicals, including radionuclides.

The Pickering Payback Agreement

The Pickering Payback Agreement was originally demanded by Ontario Hydro to protect itself in the event of a disaster precisely like the one that occurred at the Pickering Unit 2 reactor on August 1, 1983. Although a meltdown scenario was avoided, a massive pressure tube rupture resulted in the immediate shutdown of Unit 2, and Unit 1 was shut down as well, because of the possibility of a similar accident. While the reactors were down for retubing (until 1988 for Unit 2, and 1987 for Unit 1), by the terms of the agreement, AECL and the province should have been giving Ontario Hydro so-called "negative paybacks". However, they did not do so, and under the terms of a 1987 amendment to the agreement, negative paybacks were allowed to stand against anticipated future positive paybacks.

In January 1994, Ontario Hydro wrote off to 1993 net income a number of "assets of doubtful future value" including the Pickering Payback Agreement sum in the amount of $410 million.

The GEC respectfully submits that Ontario Hydro has both a right and an obligation to its customers to insist that AECL honour the intent of the original Pickering Payback Agreement -- to share the risk of Pickering Units 1 & 2 non-performance. If AECL (as it appears) is unwilling to honour this commitment voluntarily, Ontario Hydro should use all available remedies including set-offs against its commitments under the COG Agreement to recover the negative payback from AECL.

IV.D. Fossil Business Unit

(See above under GRID -- secondary sales)

V. ENERGY SERVICES & ENVIRONMENT GROUP

V.A. Energy Services Planning & Strategy

With a few important exceptions, there is a significant amount of agreement between Hydro and the Coalition *at the policy level* about how energy efficiency DSM should be done.

Our important disagreements *at the policy level* are 1) whether *all* cost effective efficiency should be pursued, 2) over the use of incentives, and 3) what the right method is for valuing externalities.

In addition to these policy level disagreements, the Coalition's largest concern in this case is that the evidence we have suggests that Hydro's on-the-ground application of many of these principles is poor and results in a seriously sub-optimal energy efficiency portfolio which will be overly costly, and will not maximize benefits.

IRP SHOULD BE THE BASIS FOR DETERMINING APPROPRIATE ENERGY EFFICIENCY AND OTHER DSM TARGETS AND BUDGETS

In his prefiled testimony, Mr. Plunkett explained that with respect to cost-effective efficiency potential "In the long run, *every kWh of efficiency potential that Hydro could achieve but fails to achieve raises the costs of providing energy service.*" Mr. Fox agreed.

In Chapter 1 above we recommended that Hydro obtain IRP capability as a top priority.

AVOIDABLE COSTS: HYDRO CONTINUES TO UNDERVALUE DM SAVINGS

The value of DSM is established by the cost of the alternatives which DSM can avoid. These avoidable costs are seriously underestimated by Hydro. Expert evidence concludes that "...it appears that Hydro's errors include understating: generation capacity cost savings, fuel savings, off-system sales profits, transmission capacity costs, distribution capacity costs, line losses, risk benefits, and completely disregarding all environmental effects."

This evidence is unchallenged in the hearing. It means that a proper analysis of cost-effectiveness would show more energy efficiency to be cost effective for Hydro and its customers than Hydro would otherwise come up with.

The GEC recommends that Ontario Hydro should revisit its avoided cost methodology taking into account the items enumerated in Chapter 5 of ex. 5.2.8.

<u>Avoidable Externalities</u>

Of particular concern to the Coalition is that Hydro is not yet valuing environmental costs in its investment analyses.

Although Hydro's Board of Directors has not approved "full cost accounting" for use at Hydro, Hydro has launched a research project in support of externality valuation and made a commitment to the damage costing method, which generally comes up with the smallest externality values of the various methods.

Hydro selectively reads from the OEB's EBO-169 report to satisfy itself that this is the appropriate method, when the OEB has actually directed the gas industry to use the regulators revealed preference or control cost method, until damage costing matures.

The serious difference between the Board's preference of control cost method for the gas industry, and Hydro's damage cost method must be resolved. We certainly do not propose to debate or attempt to resolve this difference here.

The Board should recommend that until damage costing has matured to the point where the Board finds that it should be used in Ontario, Hydro should use the values which the Externalities Collaborative favours as soon as they become available, as Ontario's natural gas Companies are doing. For nuclear power, Hydro should sponsor an extension of the Collaborative, as suggested by the TFSED, with a goal of establishing values for application to that energy form.

There's more to avoidable costs than new power plants

In a number of places on the record, various parties have asked about why Hydro should be saving energy when there is a surplus of generating capacity.[1] The answer is twofold.

There are at least seven different categories of costs which are avoidable by energy efficiency, and only one of these is generation capacity. When discussing a related point with the Board, Mr. Plunkett observed that capacity is often a minor component of avoidable costs.

Second, the fact that a future power plant is not *imminently* needed does not mean that there is not value to avoiding it. The Board should not accept the oversimplified claims of some that there is no value to energy efficiency in times of capacity surplus. Throughout this argument (and indeed throughout Hydro's evidence) the term 'cost-effective' means *after* discounting for the temporal pattern of savings versus avoided costs.

In response to the "man in the street" concern about a utility spending ratepayers' money on conservation in a time of surplus, Ms. Allen responded by saying that reducing customers' bills has value to them, and that they do understand that.

HYDRO'S WITHDRAWAL FROM A COMMITMENT TO ENERGY EFFICIENCY

During the early 1990s, it was virtually a mantra around Ontario Hydro that energy efficiency was the number one priority for meeting customers energy needs. This was manifested in a policy of pursuing *all* cost-effective DSM opportunities. In response to a question from the Coalition as to whether Hydro remains committed to that goal, it responded that it is now constrained by Hydro's "financial situation". Frankly, it is the fact that too little cost-effective investment was made in the past that has *caused* the current "financial situation". For Ontario Hydro to cut back now on cost-effective investing is to repeat its financial mistakes of the past.

Hydro promises sustainable development, but sacrifices attainment of *cost-effective* EE to keep rates low.

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[1] Two Board members described spending money on conservation in a time of generating surplus as not intuitively sensible to the "man in the street".

Hydro's targets for energy efficiency have dropped from 238 MW in 1993 to 145 MW for 1995. In the past, Hydro's annual targets have been set with an eye to achieving the long term target of 5200 MW by the year 2000. However, no guidance is available from this source any longer, since the long term target has been abandoned.

HYDRO'S ARBITRARY 1993 CUTS TO THE DSM PORTFOLIO

During the interrogatory process the Coalition had asked Hydro to provide the rationale for closing programs in 1993. The response was that generally programs were cancelled because there was unprecedented demand for them and Hydro needed to meet a zero rate increase in 1993.

The logic of terminating services that your customers obviously really want seems anathema to the new business-like "customer-focussed" approach that Hydro claims to be taking, especially when that service is central to Hydro's new mission. That point aside, however, we asked whether there had been an analysis of each program to determine which of them contributed most rate impact as a means of deciding which to adjust. No such systematic analysis was done.

INAPPROPRIATE EMPHASIS ON RATE IMPACTS OF ENERGY EFFICIENCY

The majority of the rate impact from energy efficiency has nothing to do with how much money the utility spends to get it, or if it spends anything at all. It is a consequence of "lost revenues" and having to spread recovery of the utility's fixed costs over a smaller number of kilowatt-hours. Indeed, when governments set energy efficiency standards for appliances, there will be a rate impact as a result of lost revenues, but no-one suggests this as a reason to avoid the energy and financial savings of more efficient appliances. Interrogatory response 5.6.20 shows that three-quarters of the DSM rate impact in 1995 is from lost revenues, not from utility DSM spending. It is important to recognize that the 5% rate impact from efficiency in 1995 is a result of *all* of the cumulative efficiency investments since 1989, not just 1995 DSM programs. If three quarters of this is from the unavoidable lost revenues, and the rest is from 5 years of DSM programs, that represents an average of 1/4 of one percent per year. In the hearing we discussed this question with Mr Fox, who agreed that even if you could get the same negawatts for free, this lost revenue impact would still occur - it's an unavoidable fact of life with efficiency. Or, as Mr Plunkett put it, "...the economic benefits of increased efficiency go with the rate impacts."

This obviously substantially reduces the degree to which efficiencies in DSM spending can reduce rate impacts, assuming that Hydro intends the EE to still occur. Since the remaining one quarter of the rate impact is a combination of OM&A spending and capital spending, and that incentives are capitalized and amortized over 15 years (so only a small fraction shows up in each year's rates), the rate impacts of incentive spending are very small indeed.

The only way to avoid the majority of energy efficiency's rate impacts is for Ontario to remain inefficient—we would pay lower rates, but higher bills.

The OEB should recommend that Hydro not sacrifice cost-effective EE for the small rate impact benefits.

TFSED ON RATE FREEZE VS. ENERGY EFFICIENCY

The Task Force on Sustainable Energy Development was concerned about the potential conflict between Hydro's rate freeze policy and the goal of a steady increase in energy efficiency, and recommended a review be done. When questioned about the fate of this review, Mr Fox said that no report had specifically been done.

Hydro's rate restructuring proposal does not mention this conflict.

These key areas of public interest, energy efficiency, least cost, and environmental performance, have been sidestepped by the utility. In the absence of an explicit evaluation and discussion of this issue, OEB review and public accountability has been frustrated.

Hydro should prepare a report examining the conflict between the rate freeze policy and energy efficiency, for public consultation, and for review at HR23.

HYDRO'S NEW STRATEGY IGNORES EVIDENCE OF WHAT WORKS

We rely on Mr Plunkett's written evidence on incentives as a key DSM strategy:

> Chairman Strong expresses Hydro's opinion that the market has matured to the point where incentives are no longer necessary. ...Hydro's belief that the market has now progressed beyond the point where incentives are needed to overcome market barriers has no empirical support from program experience and evaluation. ...There is overwhelming evidence that the information Hydro seeks to rely on almost exclusively is only effective in conjunction with more potent strategies, such as financial incentives, customized technical assistance, and direct measure installation. ...Hydro now believes that information and education will be sufficient to overcome market barriers in most markets. This reasoning completely ignores findings of research and evaluations that consistently show that information alone will not motivate the majority of utility customers to implement comprehensive efficiency investments. ...education is most valuable as a complement to, and not a substitute for, other utility DSM strategies. This is supported by two basic findings that stand out from research on utility DSM experience over the past 15 years. First, when all other program strategies are held constant, higher financial incentives produce higher participation, and higher savings per participant.... Second, programs relying exclusively on generalized education and information produce lower participation and comprehensiveness than programs that rely on stronger program strategies.

Indeed, Hydro's proposal to its Board to close down programs and cut incentives acknowledged that "MW results may drop as cash incentives are lowered or eliminated, as non-cash incentive alternatives tend to yield lower participation rates."

Certain markets face especially high market barriers, or combinations of barriers which are interactive. Counsel for OCAP highlighted a study Hydro had done which identified the poor, the elderly and renters as both living in old and very inefficient housing, and as groups which are unlikely to undertake efficiency investments easily. Hydro's

response was that while they would like to do something in that market in the future, the only program they had which specifically addressed part of that market, the Non Profit Housing program was cancelled last year. Their discussion treated the issue as if it was a social program to obtain efficiency resources from this market, reflecting a fundamental misunderstanding. Obtaining cost-effective savings from low-income customers is no different than obtaining them from commercial building HVAC retrofits. They both provide least cost resources for the utility and its customers.

This is not a pitch for Hydro to give away free refrigerators and pay all customers whatever it takes to get efficient. In many cases, particularly with larger customers with more financial sophistication and resources, creative financing and other tools will suffice. However, there are certain markets where cash incentives are needed to overcome the barriers in order to obtain the least-cost result.

Hydro's own energy management audit results show that non-incentive based savings are difficult to verify. The auditors were able to verify 99.5% of the incentive-based program results Hydro reported, as opposed to 76.3% of the non-incentive program results.

Hydro offers no evidence that the same results can be obtained without incentives. The best they can offer is the "hope" that programs with no or much lower incentives will have a better chance of success now than they did a few years ago.

If the result of this experiment in doing DSM without the benefit of a highly effective tool is that less of the cost-effective efficiency resource is obtained, the direct result is, as Hydro agreed, the cost of providing energy services goes up. This cost is both financial and environmental.

The GEC recommends that Hydro should use incentives as needed to achieve significant EE improvements. Hydro should be particularly careful to address all market segments. Participating customers should be expected to contribute to the cost of a DSM program to the extent that the contribution level does not seriously reduce overall participation or foreclose the participation of specific customer groups.

PRINCIPLES FOR MITIGATING EE RATE IMPACTS IN BUDGET CONSTRAINED TIMES

Mr Plunkett's prefiled evidence contains a chapter on how this can be done.

In summary these approaches are as follows:

- identify and develop programs to obtain *all* cost effective market driven lost opportunity resources;
- reevaluate each discretionary program to improve its design, and net benefits, such as adding cost-effective measures to ensure comprehensiveness and avoid *creating* lost-opportunities;
- consider deferral of some retrofit programs;
- reduce participants, but not depth of savings, in retrofit programs. This can be accomplished by more limited target marketing to those customers really in need.

While Hydro agrees with the Coalition on the importance of focusing on lost opportunities, it is apparent that these strategies have not guided Hydro's program cancellations and the redesign effort thus far. (See section C. below)

Since consumption of power by Hydro has no revenues attached to it, this kind of energy efficiency has no "lost revenue" problem associated with it. Hydro agreed that it lowers both rates and bills, and when asked if it is likely the least problematic conservation to obtain, concluded "It is a very attractive target for us."

ON DSM, HYDRO'S NEW "OPEN" CONSULTATIVE APPROACH IS NOT YET APPARENT

While continuing to discuss DSM plans with its traditional "key" stakeholders (MOEE, MEA, AMPCO), Hydro has not followed either the recommendations of the OEB in HR21 to "urgently" undertake DSM programming consultations, or the TFSED recommendation to establish a Demand Management Advisory Committee. The Board's recommendation sought a report on the consultations for filing in HR22.

The Board should reiterate its HR21 recommendation #3.1 that Hydro should hold consultations with its DSM stakeholders and request a report on the matter to be presented in HR23.

THE 1.5:1 PORTFOLIO REQUIREMENT IS ARBITRARY AND DANGEROUS

The Board should advise Hydro that a policy of using a 1.5:1 cost/benefit ratio for DSM portfolios is only acceptable on a temporary basis and only if restricted to the discretionary portion of Hydro's portfolio. If it is to be used, the term of the policy should be specified, and the reason justified.

V.B. NUGs Strategy, Programs

The limitation in the reference has been treated as largely excluding discussion of alternatives to Ontario Hydro's open access and wheeling policies. Nevertheless the matter of past and current practice arose on several occasions and highlighted one fact above all—Hydro has been autocratic and motivated primarily by concern about preserving monopoly. How else could Hydro's cancellation of its wheeling policy as part of a deal with the MEA and the Ministry be perceived?

Absent regulation Hydro will inevitably be influenced or be seen to be influenced by a conflict of interest.

RENEWABLE ENERGY TECHNOLOGIES AT ONTARIO HYDRO

Ontario Hydro filed a document entitled Toward a Strategy and Program at Ontario Hydro for Renewable Energy Technologies, May 1994 The GEC believes that Ontario Hydro has not given Renewable Energy Technologies (RETs) the high policy priority that they deserve.

The "Market Development Mechanisms" all deserve strong support, and the most aggressive interpretation possible. In particular, the GEC would like to urge an aggressive program for the replacement of diesel generation by RETs in Native and remote communities. Ontario Hydro presently provides generating capacity in 22 remote, off-grid First

Nation communities, with a total installed capacity of 17.5 MW. This generating capacity is almost entirely diesel generated with an average operating cost in 1993 of 30.9 cents/kWh. Such a plan should give the First Nation communities the opportunity to provide the renewable power themselves as NUGs. Such a plan, implemented in cooperation with First Nations would be an enormous political, environmental and economic boon for Ontario Hydro, the province, First Nations, and the NUG industry.

There are sound economic and environmental reasons to begin to immediately determine and implement an aggressive RET procurement policy, and there has been extensive and thoughtful consideration of a proper procurement strategy. It is clear that the private sector is ready and willing to play a large role in building a renewable energy base in Ontario.

The GEC recommends that in accordance with its own Long Term Objective, Ontario Hydro should set a near-term target of at least 750 MW (installed capacity) of renewable energy technologies by the year 2000. The focus should be on wind, photovoltaics, small hydro and solar domestic hot water.

The GEC recommends that Ontario Hydro should immediately initiate an aggressive program in partnership with First Nations, for the replacement of diesel generation by RETs in remote (off-grid) communities.

The GEC recommends that Ontario Hydro support the most aggressive possible interpretation of all of the proposed "Market Development Mechanisms" identified under "Near-Term Options", in "Toward a Strategy and Program at Ontario Hydro for Renewable Energy Technologies", May 1994.

The GEC recommends that Ontario Hydro should immediately open the door to renewable non-utility generation and allow wheeling for renewable NUGs.

Hydro's approach to NUG and wheeling issues illustrates its potential conflict of interest. An objective arms length body should be charged with responsibility for approving decisions in these areas.

V.C. 1995 Energy Management Programs

Although this section is about *1995* programs, we make reference to cancelled programs, to the extent that a planning process truly seeking a least cost solution would not have cancelled them.

LOST OPPORTUNITIES ARE BEING LOST

Residential furnace fan motors

Hydro ran a lost opportunity program in 1992 to improve the efficiency of replacement furnace fan motors. It was highly successful, garnering savings which were as inexpensive as .6 cents/kWh. Rather than adjust the program based on information gained in the initial period and then roll it out to the whole market, Hydro abandoned this lost opportunity market in a flurry in order to help meet a zero rate increase dictate.

Residential air conditioning replacements

There is a wide range of efficiency in the marketplace when people are replacing home air conditioners, and the popular, cheaper models are less efficient. Hydro could act in this market to influence customers, but it has no program to do so.

Apartment bulk metering

Many electrically heated apartment buildings are bulk metered. In HR21, the Board found that there exists a major opportunity for demand savings in these buildings by installing individual meters, and urged "Hydro to quickly formulate a plan in conjunction with the municipal utilities to take advantage of the potential energy savings", which got underway. However, this lost opportunity program was cancelled before it started, and there are no plans to resurrect it.

Hydro planners appear not to know the scale of the problem—there is no systematic approach for identifying lost opportunity transactions. Given that Hydro has the information needed to do a global scan on the number of *transactions* that occur each year which might be influenced, it is astonishing that Hydro has no idea how many of them their multi-million dollar programs address.

Hydro states budget constraints are one reason that all lost opportunities were not being pursued.

Hydro acknowledges that priorities should be set in constrained times to avoid discretionary retrofits and capture lost opportunities, yet in 1993 lost opportunity programs were cut, and for 1995 retrofit programs are being planned.

CUSTOMER RETENTION (LOAD GROWING) IS NOT TESTED FOR COMPATIBILITY WITH SUSTAINABLE DEVELOPMENT

Hydro has confused wholesale customer (MEU) interests with society's. When we asked why Hydro had dropped cost-effective fuel switching advice to residential customers from the Home Power Saver Audit program, the response was that since this program is done along with the MEUs, and they don't want to talk about fuel switching, that Hydro went along. As far as Hydro is concerned, the customers they are satisfying here are the MEUs. We can imagine the reaction of residential customers with electric heating when they find out that our public utilities, Ontario and Your Local Hydro, are keeping them in the dark about what's in their best interest.

The Board should tell Hydro and the Minister that Hydro's principles for energy efficiency program design need review. To the extent that rate impacts are considered serious, Hydro's portfolio should be redesigned with the principles proposed here to moderate rate impacts in times of constraint. *All* lost opportunity efficiency options should be targeted, over discretionary retrofit programs. Incentives should be included as tools to acquire these lost opportunity resources where other strategies are not effective.

Hydro's in-house energy efficiency program should be accorded top priority. Obtaining these internal savings reduces both rates and bills for everyone.

Hydro should require that MEUs participating in the Home Power Saver audit program include fuel switching advice to gas where that is in the customers best interest.

V.D. 1995 Business Plan

The 1994 budget for EM was clearly arbitrary, set at 1.5% of revenues.

The 1995 DSM *target* is acknowledged to be a placeholder. There is no real budget proposal or Business Plan for 1995 in this filing, making it rather impossible to determine if Hydro's proposal is appropriate.

Given that the corporate IRP process is late, is not expected to be in place until 1996, and that the Hydro's Board has not approved IRP in any event, 1.5% will likely be the default for 1995. In the GEC's view, arbitrariness for 1994 does not make arbitrariness for 1995 any more justified.

The GEC recommends that the correct budget for 1995 would be at least sufficient to achieve the goal of maximizing attainment of lost opportunity DSM resources for Hydro's system and its customers. *The corporate rate cap should not constrain this objective.* To the extent that an analysis shows that more resources are needed to acquire lost opportunity resources than the current formula provides, discretionary spending elsewhere in the corporation should be deferred in order to capture the cost-effective lost opportunities.

VI.B. Proposed Rates

THE FUTILITY OF MUCH OF THE REVIEW PROCESS

Hydro's rate cap for the balance of the 90's is nothing new. Hydro imposed upon itself a promise of no real rate increase in the 80's. We then witnessed a 30% increase over 3 years at the end of that decade -- an increase which has largely prompted the new promise of rates at or below inflation for the rest of the decade. As the record of past hearings testifies, the 1980's freeze was in the face of OEB and stakeholder advice that the freeze was short-sighted, threatened Hydro's financial soundness, and unfairly foisted costs onto future generations of subscribers. All of that advice has now been proven sound.

Hydro's choice to make the highly visible promise of rates at or below inflation demonstrates that Hydro does not regard the current regulatory structure as anything but an after the fact review.

> Q: (Mr. Poch) ... it [the OEB] has often recommended that the price has got to move to allow the standard of service and questions of inter-generational equity and so on to be respected. I guess my question boils down to, if that is the message that you are given, what's your response likely to be? Do you feel that you are committed to this price policy and you will not be able to deviate from it?
>
> A: (Mr. Strong) I believe we are. I take us as being committed as a corporation to that....

THE RATE LEVEL AND THE CAP ARE UNSUPPORTED BY THE EVIDENCE

OPERATING EFFICIENCY MAY BE FOSTERED BY A SPENDING CAP BUT NOT NECESSARILY BY A RATE CAP

Hydro's oft repeated "price drives cost" begs the question -- what price?

Hydro offers no real evidence or analysis supporting their choice of the status quo as a suitable proxy for a market price.

In the absence of a market, the traditional answer has been: the lowest price reflective of costs to achieve a given targeted level of service.

Hydro's reason for the freeze in 1994 and cap in 1995 and the lack of analysis behind it boils down to: "nothing more magic about a freeze in '94 than a wake-up call for the Corporation and something that our customers would accept quite dramatically as a turnaround from the past."

The harsh reality is that postponing recovery of real costs will just hurt us in years to come. And though times are tough, that doesn't lower sunk costs.

The writedown may be just the tip of the iceberg of postponed costs. Inadequate maintenance of the grid or generation assets will have the same effect as will underfunding of the acquisition of cost-effective energy efficiency.

However Hydro appears to believe that picking a rate level will automatically lower costs overall. There may be wisdom in this notion. Little else has worked over the years in the battle to control Hydro's costs. But a **rate cap** (price drives costs) isn't needed to obtain the management tool of a **spending cap** for business units. Tough management can use spending caps to achieve cost cuts where efficiencies can be obtained and then get net income included in rates sufficient to cover the real costs created by past mistakes. Unfortunately by using a rate cap rather than a spending cap Hydro may have pressured itself into much creative accounting but not necessarily much new operating efficiency.

Hydro does go beyond its internal need for cost control to justify the rate level. It claims that low rates are needed for the economy to achieve competitiveness, a pre-requisite in Hydro's view, to achieving sustainable development. But the only evidence they offer suggests that low rates have little to do with provincial competitiveness and any difficulty is limited to the special cases addressed by the special industrial discounts. (A topic we address below under Special Rates and Special Deals)

Hydro offers anecdotal evidence about certain very electricity intensive industries (as does AMPCO) but these are the very exceptional cases for whom the special rates are intended and the benefits of retaining these few customers may be short-lived (see below).

To fill the gap in our understanding about how important electricity price is to the economy, the GEC commissioned Mr. Torrie to review the evidence pertaining to the overall importance of electricity intensive industries to the economy.

The key conclusions of Mr. Torrie's analysis are that there is a virtual inverse relationship between the electricity intensity of an industry group and its output share of Ontario's industrial sector.

Further, the overall importance of electricity in industrial inputs is canvassed and Mr. Torrie concludes that given the average 0.7% value of shipments it represents it can be safely assumed that electricity is not a locational factor for most industries especially the "high performers".

Mr. Torrie finds no correlation between industrial output over time and electricity prices.

Mr. Torrie notes that even if offering electricity bargains to industry could be shown to stimulate the economy, the correlation between electricity intensity and contribution to ecosystem stress suggests that a commitment to sustainable development might dictate against such a policy.

In short, Hydro proposes to cap rates, restructure rates (and potentially reduce the quality of service) to serve a few industries that give proportionately little back to the economy and with little evidence that this effort will make any difference to the health of the economy.

THE RATE CAP IS DANGEROUS

Low rates, to the extent that they do not reflect full costs send the wrong price signal. The writeoff has postponed prompt recovery of costs in rates for recent and past mistakes. But our generation of utility executives will make its own fair share of mistakes that will also burden future customers. Equity demands prompt recovery. Similarly, to better match costs to benefits Hydro should recognize the likelihood of shorter service lives for undepreciated assets like Bruce unit 1. (See depreciation) Equity also demands that we do not forego lost opportunity DSM resources in favour of short term rate impact minimization -- to do so will also increase future costs and rates. As discussed above (under DSM), that is exactly what we are witnessing. Thus it would appear Hydro is artificially reducing rates. That is, Hydro is failing to recognize the real cost of past mistakes and is failing to minimize future costs, in an effort to lower rates today. This sends the wrong price signal.

Customers who rely on the artificial price will get hurt when the costs come home to roost, just as they have been hurt by recent price rises after they made investments in the 1980's during Hydro's last price cap era.

In addition to conflicting with the need for a correct price signal, the cap and its corresponding "affordability constraints" conflicts with the least cost planning goal of IRP and thus, even in Hydro's view, potentially with sustainable development to the extent that the least cost result isn't achieved. In other words, we are lowering rates today but increasing rates tomorrow and increasing costs overall.)

Hydro's rate cap is unsupported by analysis, is inequitable, may lead to poor investment decisions by customers, and conflicts with sustainable development.

VI.B.2. Rates - Direct Customers

In addition to our comments above on the general rate level and the rate cap, and our submissions below on the special rates we note that there is precious little evidence to support a suggestion that Hydro needs to subsidize the directs as it intends to do.

For all but a few smelters, aluminum oxide and industrial gas companies, the price of electricity is not a highly significant cost relative to other factors.

Hydro confirmed that the larger rate changes expected for some industrials are due to changes in the special rates, especially the DDS rate not the general industrial rate change.

Yet Hydro is imposing a "forced loan" from rural customers to the directs in the amount of $16.5 million.

We would respectfully suggest that farmers and families may have more need for cash than large industrial customers.

The GEC submits that no forced loans from rural customers to large industrial customers are warranted.

VI.C. Experimental/Optional rates

The GEC recommends against offering of any experimental/optional rates in light of the concerns outlined below in section VI.D.

VI.D. Rate Restructuring Initiative - appropriateness of objectives and plans for 1995

SPECIAL RATES AND SPECIAL DEALS

Mssrs. Goodman and Carlson in GEC Exhibit 6.2.9(a) list six major problems with Ontario Hydro's special rates:

1. Discount rates may result in greater environmental damage costs.
2. Discount rates may not accomplish the goal of improving Ontario Hydro's finances.
3. Discount rates are by definition discriminatory.
4. Discount rates may be the beginning of a strategy to inappropriately preserve and abuse Hydro's monopoly position and thereby enlarge electricity sales beyond socially optimal levels.
5. In the absence of transparent binding regulation, discount rates may result in free ridership, higher rates to non-participants, and inappropriate inter-customer equity tradeoffs.

6. Discount rates may be difficult to discontinue and may bring unanticipated or extended costs to the utility and ratepayers.

In oral evidence they also noted that discount rates may encourage inefficient industry at the expense of efficient industry.

THERE IS NO REGULATORY INFRASTRUCTURE TO SUPPORT HYDRO'S SPECIAL RATES AND RATE RESTRUCTURING DIRECTION.

We are at a crossroads. Hydro is moving beyond average cost based rates and time of use rates offered to customer classes and into marginal cost based rates offered to narrowly defined sub-groups of customers. Its rationale is to maintain contributions to fixed costs through "flexibility".

But flexibility means discrimination. It is inherent in special rates and deals.

GEC's witnesses suggested that Hydro's special rates are inappropriate for three reasons: the absence of information, for example about impacts and the absence of information about the details of the contracts themselves, the absence of Hydro's own effective internal screening mechanisms for these programs, and; the absence of a regulatory oversight process.

When asked how accountability was achieved in the Suncor and Dow deals, numerous Hydro witnesses pointed to the Order in Council approval. But in discussing Orders in Council as a "handcuff" on Hydro Mr. Strong acknowledged that:

> "It isn't really feasible for the government to exercise a second opinion, in effect, on these and they don't normally do so."

In addition to the need for a binding, transparent regulatory forum, Hydro has acknowledged the need for an up to date review of the theory and practice involved in rate making.

The GEC submits that this Board should advise the Minister to impose a moratorium on special deals and new rate offerings until regulatory reform has occurred. At that time a full review of the applicable rate policies and principles should accompany any specific proposals.

THERE IS INADEQUATE EVIDENCE TO RECOMMEND APPROVAL OF THE 1995 INITIATIVES

Hydro has been unable to offer specific customer information on a forecast basis. Hydro has refused to offer information about current rate customers and deals. Hydro is largely relying on anecdotal evidence from customers and selective anecdotes at that.

Anecdotes are a risky basis for decision. Hydro bases its need for special rates on just that and then seeks to implement them in secret, offering this Board little detail.

In response to concerns about this lack of information about need and about the application of the rates and deals, Hydro's answer is always the same -- trust us. But the point is not simply one of trust. The application of special rates and deals is a complicated matter with tradeoffs and forecast uncertainties. Hydro is making judgements that may cost us all. We have not even been able to satisfy ourselves that Hydro has the facts needed to make a sound judgement let alone that Hydro has made the right judgements.

THERE ARE INADEQUATE SAFEGUARDS RESPECTING SUSTAINABLE DEVELOPMENT

Of particular concern to the GEC is Hydro's failure to consider and disclose the environmental implications of its special rates and deals.

Mr. Strong acknowledged that there is some danger in Hydro making such decisions in the absence of a capability to do full cost accounting and IRP. However, in Mr. Strong's view it isn't possible to shelve such decisions pending the development of that capability. This is where we differ. To market fossil-fired power (in a manner beyond that required of Hydro to meet its obligation to serve) without understanding the environmental and system cost implications is not sustainable development.

In regard to the Sarnia deals in particular, Hydro's witnesses agreed that if we were to consider the externalities of Hydro's marginal electricity production and the alternatives those customers might have, we might find that there has been a net increase in externalities that erodes -- maybe completely offsets the financial benefits seen in these arrangements.

Externalities may also be increased by the increased production of the customers. Hydro's externality numbers, even if adequately developed and applied, would not address this problem.

Moreover, the recipients of special industrial rates are generally involved in resource extraction and processing activities with substantial environmental impacts. Thus, there is no assurance that discount rates, even if they improve Ontario Hydro's financial position, will improve overall social welfare for Ontario.

Thus far Hydro's promise of environmental and social sensitivity has not been delivered on in practice.

THERE ARE SERIOUS EQUITY CONCERNS AMPLIFIED BY SECRECY

Hydro argues that (so far) everyone benefits from the special rates and deals. But in contrast to the situation with DSM, where a well designed program offers many options for participation and where individual benefits are relatively small, industrial special rates and deals offer massive savings to a very few eligible customers.

Even within the confines of the industrial class there are concerns about competitive disadvantage.

The introduction of a move toward more flexible or unbundled rates raises a much broader equity concern as well. Why should only one part of Hydro's customer base be given access to these tailored options? For example, reliability costs are largely to satisfy the industrial customers. Residential customers account for only 3% of the cost of customer interruptions that Hydro builds its system to minimize yet they are 31% of the load. If we are to consider unbundling, shouldn't industrial customers who desire the reliability have to pay for it?

Grid executive member, Mr. Rusnov reacted to our suggestion of allocating the reliability costs to those for whom the expenditure was made by saying:

> It goes against the philosophy of the supply of power and energy in this province for the last 80, 90 years, of sharing the costs and sharing the risks.

Hydro appears willing to overlook this problem when it comes to AMPCO members having to pay their share of the Darlington costs. AMPCO members need only threaten self-generation or relocation and Hydro will excuse them from paying their full share of fixed costs. This despite their organization having been among the most vocal of supporters for Darlington.

Finally the Board should take note of Hydro's choice to offer deals to Suncor and the Dow consortium rather than offer them rates. Two results flow. First, other customers don't get the right to the same deal. Second, this Board and the intervenors were denied the opportunity to review the proposals.

THE RATES MAY BE COST INEFFECTIVE IN THE LONG TERM

There are at least two ways in which the various rates may increase long term costs.

First, they send the wrong price signal and thereby may encourage inappropriate customer decisions that will lead to long term load.

Second, it may be difficult to wean customers off the rates. As we have seen with the DDS rates, we all pay when Hydro can't get the hogs away from the trough. ($55 million according to Mr. Harper)

THE RATES AND DEALS MAY ACTUALLY RAISE RATES IN THE SHORT TERM

The possibility of short term rate impacts for other customers arises in two ways. First, it appears that special deal customers like Suncor and the Dow consortium may actually be paying less than Hydro's short term incremental costs for power (or selling it to Hydro for more). Second, free riders in the special rate customer groups may obliterate any potential contribution to fixed costs that non-free riders might make.

Hydro refused to answer the direct question, is Hydro paying more or less than its incremental costs to the Dow consortium?

Hydro has been anything but forthright in this matter. It did not even mention the deals in its pere-filed evidence despite them having been signed in December and February. The Board should presume the worst in the absence of clear evidence.

As to the second concern, free riders, (or more generally, cross subsidies creating a net loss to other customers):

- There are no express criteria in the SPR rate to exclude free riders.

- That Hydro needs to achieve a free rider rate of less than 1 in 7 to avoid raising everyone else's rates.

- That the RTP rate will lose something less than $17.5 million in 1992.

- That RTP-2 has no anti-free rider criterion.

- For the STIP rate there is no non-free ridership criterion.

- The Guaranteed Rate is a bet. (One that the customer only wins from if the rest of Hydro's customers lose)

Based on the limited information available, it would appear there is some risk of special rates and deals actually raising rates.

THE RATES HAVE LIMITED VALUE

The evidence suggests that special rates either have so small an impact that they are swamped by other factors, or in a few cases where companies are basically bottling electricity (aluminum oxide, and industrial gasses), unless Hydro is prepared to meet subsidized prices elsewhere, the rates are just forestalling for a few years the inevitable closure of these operations.

Due to concerns about the lack of a suitable regulatory mechanism, efficacy, rate impacts, long term capacity impacts, free riders, customer equity and in particular sustainable development, the GEC recommends against the implementation of all of Hydro's proposed optional and experimental rates. The GEC submits that this Board should advise the Minister to place a moratorium on special rates and deals until such time as there exists a binding regulatory mechanism in place that can assess and monitor these various factors.

VII. Costs

This hearing has had particular importance to the GEC's constituents due to it being a turning point for Ontario Hydro in terms of sustainable development, DSM, rates, and business organization. The GEC has endeavoured to point out to the Board the environmental and sustainable development implications of each of these matters. We hope that our participation has assisted the Board in its difficult task.

The GEC respectfully requests it be awarded 100% of its reasonably incurred costs.

EXECUTIVE SUMMARY OF GRAND COUNCIL TREATY #3

Recommendation 1.0: As a key component of Ontario Hydro's and Ontario's discussions regarding fundamental restructuring of Ontario Hydro to improve competitiveness, Ontario and Ontario Hydro should be required, in consultation with Grand Council Treaty #3 (GCT#3), to address the government-to-government relationship between First Nations and Ontario, and how that relationship will influence any fundamental restructuring.

Recommendation 1.1: OH should consult with GCT#3, at this time, not waiting until a potential new supply development is planned which may affect Treaty #3 territory, and before the Hydro Board of Directors finalizes its list of sustainable development indicators, to discuss what the concept of sustainable development should entail, and how that concept should be implemented. That consultation should also include a review and potentially, a revision of the guiding principles for implementing the strategy for sustainable energy development.

Recommendation 1.2: As part of its consultations with GCT#3 recommended in Recommendation 1.1 above, OH should consult on the role of GCT#3 First Nations in decision-making within their territory, and how that decision-making role is to be implemented in the Integrated Resource Planning process. This part of the consultation would also have to include a role for Ontario.

Recommendation 1.3: Any specific role for Hydro with respect to stewardship should be assigned to it by Ontario, as a result of government-to-government arrangements between GCT#3 and Ontario. Therefore, the Minister should negotiate with GCT#3 First Nations, in particular within the electricity sector, to discuss the relative stewardship responsibilities of Ontario and First Nations, and what role Hydro should play in government-to-government agreements in this sector.

Recommendation 1.4: Ontario Hydro should ensure that each of the Business Units has the required expertise and commitment to deal proactively with environmental (including sustainable development) issues raised by its activities, and with the concerns of First Nations related to the planning and design stages of projects.

Recommendation 1.5: OH should give consideration to external assessment of its performance on meeting its sustainable development objectives, as measured against sustainable development indicators. Consideration should be given to including representatives of First Nations as external assessors.

Recommendation 1.6 OH should acknowledge and use traditional ecological knowledge in its decision-making processes, and when setting criteria and standards for environmental assessment, and should modify its IRP principles accordingly.

Recommendation 1.7: Hydro should involve First Nations in its full-cost accounting research and deliberations, including evaluation of methodologies, identification of resources to be valued, and proposed externality values, providing adequate resources for technical expertise to assist in this work. Part of these deliberations should focus on who should be determining values for particular externalities.

Recommendation 1.8: Early consideration be given by the Environment and Sustainable Development Division of the ES&E Group, in consultation with GCT#3, to ensure that non-monetizable impacts are not accorded a lesser degree of consideration because they are not monetized.

Recommendation 1.9: That an on-going consultation process be developed between Hydro and GCT#3 First Nations regarding matters relating to quality of service to their First Nations. This consultation process should be developed in the context of the review of the mandate and authority of ANAB referred to in Recommendation 1.12.

Recommendation 1.10(a): Hydro should reconsider its decision rule in relation to past grievances, contained within the July, 1993 Policy for Aboriginal Relationships, in light of the recommendation of the Task Force on Sustainable Energy Development in this matter, to clarify that Hydro's intention is to resolve these grievances <u>without delay</u>. (b) Hydro should take whatever steps necessary to ensure that the corporate restructuring not adversely affect the negotiations and settlement.

Recommendation 1.11: Hydro should develop, in consultation with stakeholders and First Nations, a screening process for IRP with respect to existing generating facilities that takes into account, among other factors, the environmental effects of existing facilities, including those effects identified by locally affected people.

Recommendation 1.12: The mandate and authority of the Aboriginal and Northern Affairs Branch should be reviewed and revised in cooperation with GCT#3 to permit it to facilitate concrete useful cooperation between GCT#3, and all of Hydro's business units and other corporate branches, by creating clear linkages between these various parts of Hydro. The Aboriginal Relations Committee of the Board also should become more actively involved in addressing First Nation concerns, in accordance with its Terms of Reference.

Recommendation 1.13: In consultation with GCT#3, OH should devise measures to improve the record of Hydro in providing employment opportunities for aboriginal people, and report specifically on their progress in this matter at the next rate hearing.

Recommendation 4A.1: The Minister should require Hydro to hold an open public debate, with adequate funding for scientific support to allow participation by concerned publics and First Nations, on the issue of

potential EMF impacts from exposure to electromagnetic fields from high voltage transmission lines, and appropriate mitigation measures to address this matter.

Recommendation 4B.1: Hydro should specifically examine in the course of developing its integrated facility plan, whether certain hydroelectric facilities ought to be decommissioned in light of, among other things, their environmental impacts. Hydro should also, in developing said plan, consult directly with affected First Nations on the impacts of its hydroelectric facilities and steps to be taken to mitigate negative impacts. This consultation should be done in a manner which allows for First Nations' concerns to be documented and actions taken or responses given recorded, to permit traceability of the results of the consultation.

Recommendation 4B.2: The Board should not find, given the absence of quantification of major risks of weather and the possible increase in costs due to increase in water rental payments, and of projections of past grievance settlements with First Nations, that Hydro will be able to meet its net income projections for the Hydroelectric Business Unit.

Recommendation 5.1: The Minister should include in the reference for the next rate hearing a direction to the Board to specifically investigate Ontario Hydro's progress in supporting renewable energy projects. As part of that reference, given the peat resources available within GCT#3 territory, studies that have already been completed by GCT#3 and others, and the apparent relatively low environmental impact of this supply technology, OH should be directed to specifically report back on its efforts in exploring this resource in consultation with GCT#3.

Recommendation 5.2: Hydro should pursue and acquire cost-effective lost-opportunity DSM resources, and, in order to do so, undertake a comprehensive review of its proposed DSM programs, using, among other things, the critique offered in Exhibit 5.2.8, "Assessment of Ontario Hydro's 1995 Demand Management Plan".

Recommendation 5.3: Hydro should not categorically reject the use of incentives, but make judicious use of them to ensure uptake of cost-effective energy efficiency measures. In so doing, Hydro should specifically reconsider the use of incentives to ensure uptake of cost-effective energy efficiency measures in First Nation communities.

Recommendation 6.1: Ontario Hydro should determine whether a plan can be developed for repaying the balance in the direct customer account, and only if that determination is made, should it proceed with the suggested adjustments in the rural and direct classes. The plan should then be filed in the next rate hearing. In the event that Ontario Hydro determines it cannot develop such a plan, it should not proceed with the adjustments in accounts.

Recommendation 6.2: With respect to the various load retention and economic development rates that Hydro is offering as discount rates to its industrial customers, that, despite their experimental nature, in the absence

of information about the details of the contracts themselves; effective internal screening mechanisms for these rates; and regulatory supervision, this Board should not endorse these rates as being appropriate.

Recommendation 6.3: That Ontario Hydro conduct a study, the results of which should be reviewed in the review of rate principles, on the proper design and implementation of lifeline rates for member First Nations of Grand Council Treaty #3, and that this study be produced at the next rate hearing.

Recommendation 6.4: Ontario Hydro should, in the course of Hydro's apparent shift towards exploring more market-based rates, explore, in close consultation with Grand Council Treaty #3, rate programs that would insulate these customers from the adverse impacts of these rates, including lifeline rate programs and special community economic development rate programs, as well as service improvements.

EXECUTIVE SUMMARY OF INTEGRATED ENERGY DEVELOPMENT CORP.

The Integrated Energy Development Corp. (IEDC) submission to the Ontario Energy Board (OEB) was intended to illustrate the feasibility of developing a commercial model of sustainable energy at an existing industrial park known as the Bruce Energy Centre. Development of this project adjacent to Ontario Hydro's Bruce Nuclear Power Development (BNPD) would create a world scale example of industrial ecology.

With regard to the OEB examination of Ontario Hydro's restructuring, IEDC submits that Ontario Hydro's corporate strategy regarding sustainable development should be supported. As well, IEDC submits that appropriate rates for interruptible access to Ontario Hydro's back-up power should be supported. Specific initiatives already undertaken by Ontario Hydro to examine the potential for utility cogeneration as well as an electrolytic hydrogen and oxygen based synthetic fuel project, are important steps in implementing a sustainable objective.

IEDC further submits that an "ecopark" strategy, in cooperation with communities and Ontario Hydro should be implemented.

BNPD represents a valuable non-carbon resource that supports existing industrial and energy synergies for commercial development of a synthetic fuel project based primarily on renewable inputs. Unutilized Hydro capacity in the form of cogenerated steam and stand-by or "back-up" electrical generation exists at BNPD. This unutilized capacity should be provided at flexible rates according to criteria based on Hydro's current status and corporate objectives. Significantly, this includes the opportunity for Ontario Hydro to "partner" in the achievement of sustainable development and to extend its resources into manufacturing environmentally superior transportation fuels providing long-term benefits to Hydro ratepayers.

IEDC concludes that the Bruce Energy Centre, with a significant sustainable energy synthetic fuel component would provide the surrounding communities, Ontario Hydro and industry the means to model sustainable development for the Province of Ontario and beyond.

EXECUTIVE SUMMARY OF INDEPENDENT POWER PRODUCERS' SOCIETY OF ONTARIO

Introduction - Hearing Process

1. Hydro's Approach to the Hearing

In the same way as IPPSO has been quick to criticize Ontario Hydro in the past for its demeanour in the annual rate hearings, IPPSO must be and is quick to praise Hydro when, as this year, it adopts a resolutely open and co-operative approach to the hearings which benefits the Board and the parties.

1. ***The Board should, in its H.R.22 report, specifically congratulate Hydro on taking a positive and co-operative approach to the rate hearing, and should give Hydro full credit for helping to make a very difficult and complex hearing both easier to deal with, and more beneficial to the ratepayers.***

2. Exchange and Utility of Information

The continued lack of standard electronic document interchange in these hearings was especially problematic this year, given the greater quantities of information and numbers of issues. It is long past the time when the rate hearings can continue with most information exchanged in paper form only, and the existence of new technologies makes a transition to electronic format much easier than in the past.

2. ***The Board should direct its own staff to consult with the parties to H.R.22, and any other interested parties, with a view to developing and establishing a mandatory standard for electronic data exchange no later than the date of the H.R.23 reference letter. Commencing with H.R.23, all information provided to the Board relating to the rate hearing should be required to be in that standard electronic data format, as well as in hard copy.***

3. ***The Board should establish amongst Hydro, Board staff, and interested parties a working group to develop for the Board's consideration a proposal to bring information technology directly into the hearing room within the next two years, which proposal should include consideration of on-line access to all evidence, availability of analytical and retrieval tools, etc.***

3. Intervenor Funding

While most intervenor funding issues are outside the purview of this Board, the annual rate hearings contain some unique features: predictable time frames, with most of the same parties, dealing with predictable and often recurring issues. A pre-hearing process that got workplans started, and resolved non-contentious funding issues, would benefit the parties, Ontario Hydro, and the Board.

4. ***This Board should direct Hydro, Board staff, and those parties who are interested to establish a working group, no later than November 1, 1994, to develop a basic issues list, establish and implement co-ordinated workplans for analysis, and deal with as many intervenor funding issues as possible, all in advance of the 1995 rate hearing, participation in such working group by interested parties to be funded on a shared basis 50-50 by Hydro and the interested parties.***

I. RESTRUCTURING

The Imperative for Change.

An ex post facto review of a fundamental restructuring is of limited value. What became clear throughout the hearings is that there are many critical issues remaining to be addressed, some of them expressly excluded from these hearings. Further, it was also clear that there is near unanimity amongst the stakeholders on the need for broader hearings to deal with those issues.

5. ***This Board should advise the Minister that it is of the opinion, having reviewed, as best it could given the constraints in the H.R. 22 reference, the restructuring carried out to date at Ontario Hydro, including its objectives and necessary ramifications on regulation, that in order to protect the viability of Ontario Hydro and the electricity supply to the province of Ontario, this Government must act, definitively and quickly, to facilitate a full public review and consulation regarding the future structure of the electricity sector in Ontario.***

A. The Objectives of the Restructuring

1. Corporate Mission

The Ontario Hydro Mission Statement is well-intentioned but inconsistent with the practical short-term goals of Hydro managers and the corporation as a whole. As Hydro moves into the future, its longer term goals, which could be the focus of a Mission Statement, will be determined by far-reaching decisions - not yet made - into the future of Ontario Hydro. Retaining the current Mission Statement is therefore counter-productive.

6. ***The Board should advise Ontario Hydro to suspend its current Mission Statement on the basis that it is inconsistent with the current priorities of the corporation, and to adopt in its place the following short-term goals:***

A. ***To remake the corporation on a firmer and more viable financial base, consistent with the reasonably likely future structures of the Ontario electricity sector.***

B. ***To supply energy services to the people of Ontario, for so long as its current mandate continues, reliably and at a low cost.***

C. ***To actively seek out and participate in the debate on the restructuring of the Ontario electricity sector for the benefit of the people of Ontario.***

B. Organizational Restructuring

3. Authority and Accountability of Groups and Units

IPPSO's primary recommendations in this area are dealt with under headings related to "Asset Writedowns", "Asset Allocations", and "Transfer Pricing Policy". One specific recommendation, arising out of the evidence of Dr. Kahn that the independence of the Grid Business Unit as the common customer for the generating business units, is:

7. ***The Board should recommend to Hydro that it cut the organizational ties between the Grid Business Unit and the generating business units, so that all operate independently of each other as suppliers and wholesale customer.***

5. Staff Reductions

IPPSO in general agrees with the evidence of the PWU that Hydro has not sufficiently addressed the goal of flattening the Hydro organizational structure. While some movement in that direction has been seen, there is still much more to be done for Hydro to become truly competitive.

8. ***The Board should recommend to Hydro that it adopt as a short-term goal the further substantial flattening of its organizational hierarchy to the maximum degree consistent with efficient and cost-effective management in the context of regular and intelligent managerial risk-taking.***

With respect to implementation of that goal, the PWU wants to start from the assumption that union workers are the "functional" ones, and non-union workers are not. This is incorrect. However, the basic idea of carrying out a truly functional analysis of Hydro staffing is right, and IPPSO believes that such an analysis, starting from customer needs and working forward from there, is essential.

9. ***The Board should direct Hydro to develop and implement an urgent functional re-analysis of its staffing structure in conjunction with the union, the Society, and other interested parties, and deliver to the Board in the next rate hearing a comprehensive report on proposed additional changes to its organizational structure for public review prior to implementation.***

7. Implications for Current Regulatory Processes

Any significant changes in the regulation of Ontario Hydro must await the expected review of Hydro's future. In the meantime, the fact that virtually everyone agrees that Hydro should be overseen by an agency with more teeth leads to the possibility of an interim, de facto solution that could move in that direction and provide useful experience on what a regulated Hydro will be like. This can be accomplished by the following:

10. ***The Board should recommend to the Ontario Hydro Board of Directors that it adopt the following principle to govern all of its decisions on behalf of Ontario Hydro:***

> ***Ontario Hydro will accept and implement each and every recommendation of the Ontario Energy Board as if legally bound to do so, without exception, unless (and to the extent that) the government of Ontario formally directs Ontario Hydro not to do so in any specific case.***

C. Financial Restructuring Issues

1. Consolidation of Accounts

On the basis of the evidence before the Board, the consolidation of equity accounts appears to be OK from an accounting point of view. However, that conclusion deals only with what information should be in the financial statements, not what information this Board as regulator should have before it. Critical in that category is the ongoing success or failure of Hydro to build its debt retirement and reserve accounts. This Board must be able to see on a regular basis the same information as it had in the past in those areas.

11. ***The Board should require Ontario Hydro to continue to provide to the Board in the annual rate hearings a breakdown of its equity into the SDR, RSRC, and provincial contributions in a format consistent with past rate hearings.***

2. Debt Structure

IPPSO proposes throughout its submissions that the balance sheets of the business units should not be based on some kind of accounting "tracking" that is wholly artificial and helps neither the Board nor the business unit managers. Rather, the assets, and the associated debt and equity, should be allocated to the business units on a hypothetical sale basis, so that each business unit has a starting balance sheet that gives them a fair shot at success or failure on their own current and future efforts. This does not affect the overall financial statements of Ontario

Hydro, but it does mean that the assets are allocated at fair market value (an increase or decrease from historical cost), and the debt is allocated on a fair percentage of that value. The remaining debt (assuming as we do that this does not allocate all debt to business units) should be left in the Corporate Group.

12. ***The Board should recommend to Ontario Hydro that it re-allocate its opening debt as between its business units to more properly reflect the going concern value of each such business at the time of the restructuring, using a hypothetical "sale" approach to that valuation, and that Hydro allocate any excess debt to the Corporate Group.***

Once the business units each have a fair allocation of assets in liabilities in their opening balance sheet, and a fair and competitive transfer pricing system is implemented (see later in these submissions), each business unit should be able to borrow as needed for capital or operating costs. Rather than have each unit access the market independently (with the associated duplication of efforts and other problems), it is proposed that the Corporate Finance Group operate internally as the banker for the business units, lending them money as required on commercial terms, and then borrowing in the marketplace to match those loans in the most efficient manner. Like all banks, the Corporate Finance Group should seek through its financial skills to make a profit on its lending and borrowing portfolios.

13. ***The Board should recommend to Ontario Hydro that future financing of business unit operations be structured so that the Corporate Finance Group functions as the banker for the operating business units, "lending" them money on commercial terms suitable for the purposes of the loan, and then financing those loans through such market activities as the corporate finance people feel are best given their banking capacity. The Corporate Finance Group should thus be identified as a separate business unit, profiting or losing on its banking activities within the corporation based on the application of the skills of those within the unit.***

3. Asset Writedowns in 1993

Pickering Payback.

The evidence of Mr. Gobeil makes clear that the Pickering Payback writedown was too high, and results in reductions in future costs that are overstated on any proper accounting basis.

14. ***The Board recommend to Hydro that it adjust its writedown for the Pickering Payback Agreement to give full credit for that portion of the future payback that is expected to accrue in future years due to the expected performance levels of the Pickering A NGS.***

Nuclear Fuel Writedown.

Pretending that nuclear fuel costs are lower than they really are is not good accounting and not good management. If the need is to reflect reducing replacement values for nuclear fuel, the accepted accounting technique is LIFO inventory accounting.

15. The Board recommend to Hydro that it reverse its nuclear fuel writedown, and replace it with a "last-in, first-out" accounting system for nuclear fuel usage that properly reflects the replacement costs of nuclear fuel in reactor operation.

Asset Valuation.

As noted earlier, allocation of assets to the business units should be on a fair market value basis. Thus, nuclear assets are written down and hydroelectric assets are written up for internal accounting purposes. The overall financial statements of Ontario Hydro are not affected - they retain the historical cost accounting principle. The business unit statements, on the other hand, which have a different purpose and impact, should give the managers in those units a fair shot at success or failure.

16. The Board recommend to Ontario Hydro that it restate the values of all assets notionally transferred to the business units at fair market value at the time of the restructuring, so that the internal financial statements of the business units will fairly reflect the assets of their respective businesses, and thus the return on assets expected and achieved by each unit.

4. Debt Reduction Plan

It is shocking that Ontario Hydro has failed to provide this Board with a comprehensive plan for the reduction of its debt over time, which plan should analyse the options available to Hydro and make intelligent selections from among those options. This Board cannot reasonably be expected to make solid decisions on rates and other matters if the "game plan" for financial health is not before it.

17. The Board should require Ontario Hydro to perform a detailed analysis of a comprehensive range of options for the reduction of its debt within a reasonable time, and to file that analysis with this Board no later than March 1, 1995.

<u>II. CORPORATE OVERVIEW</u>

Integrated Resource Planning.

<u>Comprehensiveness.</u>

Significant decisions by Ontario Hydro should as a matter of practice be subjected to a system analysis that includes consideration of a wide range of options and a full range of costs and impacts, including externalities. Many major issues before this hearing showed a lack of application of this basic IRP concept.

<u>Centralized review.</u>

"Appraisal optimism" runs like a motif through many of Hydro's documents. The solution to this is an IRP process that is centralized and independent, with full public review.

<u>A. Corporate Business Plan for 1994-1996</u>

5. Corporate Functions and Overhead Allocation

The burying of perhaps $170 million of shared corporate OM&A in the various business unit statements makes it difficult for this Board to deal with that substantial expense in any meaningful way.

> ***18. This Board should direct Ontario Hydro, in future filings before this Board, to clearly set out all shared corporate costs, whether or not borne by the business units, disaggregating them by type in the same way as the business unit costs.***

These submissions consistently take the view that further OM&A reductions in all areas are necessary and possible. In general, the average proposed is about 10%, with variations by business unit based on size of budget and current needs. In the case of the shared corporate OM&A, the many infrastructure issues still to be addressed by Hydro over the next year or two suggest that the shared OM&A cuts should be less than that standard.

> ***19. This Board should recommend to Ontario Hydro that it reduce its planned shared corporate OM&A for the rate year 1995 by $10 million.***

<u>B. Policy on Transfer Pricing</u>

Transfer pricing is not, as Hydro as suggested, "uncharted territory". On the contrary, it is a very much studied area (by tax authorities, regulators, etc.) with a large body of research and analysis available for review. Hydro should not be reinventing the wheel here. Rather, it should carry out a full review of that large body of information, so that for the most part its own transfer pricing system can adapt knowledge that is already in the public domain.

20. The Board should direct Ontario Hydro to carry out a disciplined analysis of transfer pricing options available to Ontario Hydro based on existing research and publications available in analogous areas, and to present that analysis together with conclusions and a recommended transfer pricing framework to this Board in H.R. 23.

Conceptually, transfer pricing should enhance the accountability and competitiveness of the business units. To accomplish this, the products of the business units must be disaggregated and valued using external benchmarks or customer needs, rather than business unit costs.

21. The Board should recommend to Ontario Hydro that it move no later than the end of 1995 to a transfer pricing system that is based solely on the true value to the ratepayers of the "products" provided by each of the business units.

C. Net Income Forecast

1. Overall Corporate Target

The net income target proposed by Hydro, after adjusting for the effects of accounting changes that have no real operational impact, is a small fraction of SDR. This is not sufficient. Hydro should, after making significant operational changes, be able to meet the SDR before taking the accounting changes into account. In this way, the result is that the real changes brought about by the restructuring, not the cosmetic changes, put Hydro on the road to financial health.

22. The Board should require Ontario Hydro to adopt a net income target for the rate year 1995 of the SDR as otherwise determined, plus the effects of the restructuring charge on 1995 accounting expenses, for a total of $1,066 million.

E. Depreciation

1. Provisions of Decommissioning, etc.

Everyone appears to agree that the time has come to fully fund the decommissioning and other long-term reserve funds on which future generations will rely. That has not yet been done, although Hydro witnesses appear to support that move.

23. This Board should recommend to Ontario Hydro that it revise its accounting policy on Irradiated Nuclear Fuel Costs and similar long-term liabilities to provide for segregation of funds collected through rate charges for storage and disposal of nuclear fuel and similar costs to an independently managed fund.

F. Accounting Policy Changes

1. NUG Costing

Hydro has implemented the capitalization of certain NUG costs as recommended by IPPSO in H.R. 21.

G. Human Resources Plan

1. Compensation, etc.

Given past recommendations from this Board, and the consensus among many stakeholders, it is surprising that the restructuring did not include any attempt to deal with the ongoing problem of the differential between Hydro compensation levels and comparable compensation in the marketplace.

> ***24. The Board should direct Ontario Hydro to take more significant steps to reduce the compensation differentials between Hydro employees and comparable outside employee groups, with a target of halving the overall differential by the end of 1996.***

The concept of more performance-based compensation appears to have been accepted by Hydro and most of the other parties. This should include reductions in base compensation, and significant performance-based bonuses to be made available to employees based on financial (not operational) results, i.e. revenues or profits. A move to fair opening balance sheets, and value-based transfer pricing, will facilitate this. While private sector benchmarks for performance-based compensation are as high as 50% of compensation or more, an aggressive target for Hydro is more like 30%.

> ***25. The Board should recommend to Ontario Hydro that it move towards a heavier emphasis on performance-based compensation paid out of business units profits, with a target of 30% of management compensation and 15% of non-management compensation on this basis by the end of 1996.***

H. Corporate Performance Measures

> ***26. The Board recommend to Ontario Hydro that it integrate its benchmarking and other performance measurement activities with its transfer pricing scheme and its performance-based compensation arrangements, with a view to maximizing the direct accountability of employees and managers based on achievement of performance goals.***

> ***27. The Board strongly recommend to Ontario Hydro that it move quickly to establish external benchmarking standards for its key business activities, and that in doing so it emphasize private sector benchmarks whenever private sector activities can be applied by analogy, even if not directly, to the activities of Ontario Hydro.***

I. Load Forecast

Hydro witnesses have made clear that the "no load growth" approach to 1995 load is intentionally conservative. In general, this is a good idea in times of surplus. However, if the projection is too low, this Board must recommend more extensive reductions to costs, or higher rates, to meet net income targets. This is counter-productive. If, as we do, we expect that load will grow somewhat, then even a conservative approach would include some load growth to prevent inappropriate rate and cost decisions. Evidence in the marketplace and before the Board suggests that, for a number of reasons outlined in 'the argument, load is likely to increase.

> 28. ***The Board should recommend to Ontario Hydro that it revise its load forecast for the rate year 1995 to incorporate a 1% net increase in primary load.***

III. ONTARIO HYDRO ENTERPRISES

A. Ontario Hydro Technologies

1. Strategy

IPPSO wishes to clarify for the Board that, while it is likely that the private sector can do most of the things that OHT can better and cheaper, it is still in Hydro's interest the case of each initiative to explore the full range of structural deals with the private sector. This is consistent with private sector practice.

B. Ontario Hydro International

2. Programs

> 29. ***The Board recommend to Ontario Hydro that it apply the same environmental standards to its international ventures as it applies to its domestic operations, failing which it should not involve itself in those international ventures.***

3. Business Plans 1994-1996

If the best OHI can hope to achieve is profitability in 1997, perhaps Ontario Hydro should reconsider whether this is a good investment of ratepayer funds in a time of severe fiscal constraint.

IV. ELECTRICITY GROUP

A. Grid System Business Unit

1. Consistent Energy Set 1994/5

Past CES projections have shown problems with nuclear performance estimates. The classic approach to dealing with forecast errors of this sort is the institution of a variance report that reconciles past forecasts to actuals.

> ***30. The Board recommend that Ontario Hydro henceforth include in its published CES a section reconciling the last two CES forecasts with actual performance for those time periods. As well as numerical reconciliation this section should include qualitative explanation for variances between forecast and actual values.***

2. Transfer Pricing - Mechanics and Costing

Consistent with the policies discussed earlier, and the need for the transfer pricing system to send the right signals to the business units, it is recommended:

> ***31. The Board direct Hydro that the next iteration of the TPA should reflect payments that are tied 100% to delivered product, in order to reflect value to the system rather than cost of the generator.***

In order to reflect the different benefits being brought to the system by different generating technologies or operational decisions, it is essential that the components of "electricity" be disaggregated for pricing purposes. Further, the Grid Business Unit, in the more independent role we have proposed for it, should be able to seek its own profitability through the development of a portfolio of power purchase contracts from the generating business units.

> ***32. The Board direct Ontario Hydro to present for H.R. 23 a transfer pricing proposal which fully disaggregates the components of electricity production into short and long term capacity, energy, spinning reserve and other such aspects as can be quantified and valued, and which contemplates a balanced and reliable portfolio of supply "contracts".***

5. Costs

Costs of power purchases from NUGs.

Ontario Hydro continues to present information to this Board and to its own Board of Directors that inappropriately compares the reliable supply of capacity and energy by NUGs with short run marginal costs. This would only be a reasonable approach if the same practice were followed for Hydro baseload generation, but that is not done. As a result, and as Hydro witnesses regularly admit, the evidence provided to the Board on the impact of NUGs on rates is structurally misleading.

33. That Ontario Hydro develop a new method of reporting the impacts of non-utility generation that more fully reflects the relative system value of NUGs and more accurately describes the upward or downward pressure of NUG procurement on costs and rates.

<u>OM&A</u>

Consistent with the overall recommendation that OM&A be cut across all business units, it is proposed:

34. The Board recommend that the Grid Business Unit target an additional $20 million of OM&A cost cutting for the 1995 rate year.

<u>**B. Hydroelectric Business Unit**</u>

1. Business Plan 1994-1996

The Hydroelectric Business Plan does not include any analysis of the substantial "build-or-buy" decision implicit in the SHARP program. Given the evidence before this Board that hydroelectric capital projects are done cheaper by the private sector, this omission could have severe negative impacts on the financial position of the Hydroelectric Business Unit.

35. The Board instruct the Hydroelectric Business Unit to produce, for HR-22, an evaluation of the proposal that some or all of the small hydro sites identified for rehabilitation or redevelopment under the SHARP program be redeveloped by the private sector starting in 1995.

3. Costs

<u>Offloading of costs to the private sector.</u>

There is an underlying "contest" between the private sector and the PWU over who can do things cheaper or better or both. The SHARP program may provide a perfect opportunity to test whether one or the other is right.

36. The Board should recommend that Ontario Hydro develop, in conjunction with IPPSO and by the end of 1994, a program whereby the small Hydro sites identified under the SHARP program for redevelopment be allocated between Ontario Hydro Hydroelectric and the private sector for redevelopment, and report on the results H.R. 23.

<u>OM&A</u>

As part of the overall reduction of OM&A across the board:

37. ***The Board recommend that the Hydroelectric Business Unit target an additional $10 million of OM&A cost cutting for the 1995 rate year.***

C. Nuclear Business Unit

1. Business Plan 1994-1996

The Nuclear Business Plan appeared to be full of "wishful thinking" and short on disciplined analysis of challenges and solutions.

38. ***The Board recommend that Ontario Hydro Nuclear revisit the usefulness of its business planning and budgeting process and present to H.R. 23 a justification for its 1996 business plan through a rigorous analysis of contingencies and sensitivities and detailed discussion of the assumed arresting and reversal of past trends toward increasing costs and decreasing performance.***

3. Outage Rates

IPPSO agrees with the submissions of the PWU that cutbacks in the nuclear maintenance programs are, in effect, penny wise and pound foolish. These significant Hydro assets need to get more and better care if they are to be turned into profitable assets.

39. ***The Board should recommend to Hydro that its nuclear maintenance program be increased for the rate year by $50 million, with $15 million allocated to operations and $35 million allocated to capital.***

However, there is a lack of evidence that increases and decreases in nuclear maintenance in the past have directly impacted performance, or how long an increase must be maintained to produce results. Therefore, it is important that this additional expenditure commitment be monitored closely by Hydro and this Board.

40. ***The Board should direct Hydro to monitor closely the costs and impacts of the increased maintenance program, and report to the Board in H.R. 23 on the results.***

5. Bruce Unit 2 Shutdown

The evidence of Dr. Chuchman for the PWU has been shown to be too badly flawed to be of assistance to the Board. His many errors, and his lack of support for assumptions apparently provided by his client or estimated by himself without expertise, show many nine-figure variables that together make his study unreliable.

On the other hand, his final conclusion from his oral evidence appears to be the same as that of Mr. Marcus in H.R. 21 - sooner or later the decisions about the Bruce A units - all of them - have to be done right. Further, everyone appears to agree that a full system analysis in the context of an IRP process is the only proper approach, and is justified by the size and potential impact of the decision.

41. The Board should direct Hydro to carry out a detailed and comprehensive system-based analysis of the cost-effectiveness of complete Bruce A options, including but not limited to full or partial shutdown of one or more units, full or partial mothballing, rehabilitation in whole or in part, or any other options for the facility that are reasonably feasible, and to present that report to this Board for detailed review within twelve months.

Half in jest, the PWU agreed to pay $5 and take over Bruce Unit 2. While recognizing that such a deal is unlikely to take place, IPPSO recommends that Hydro take the PWU up on that offer. The worst that can happen is that Hydro and the PWU learn from each other during the course of the negotiations.

42. The Board should recommend that Hydro and the PWU initiate negotiations on the possible transfer of Bruce Unit 2 from Hydro to the union or workers for a nominal sum, for the employees to rehabilitate and operate at their own expense on a pay-for-performance basis in the manner of a non-utility generator.

6. Heavy Water Production

Hydro has used "commercial sensitivity" to ground a refusal to justify continued expenditures on the Heavy Water Plant. This should be seen as unacceptable. If they are unwilling to justify spending the money, they should sell the facility, or close it.

43. The Board direct that Ontario Hydro should either find a private sector purchaser for its heavy water production facilities, or close them.

8. Costs

The Nuclear OM&A budget is among the largest variable costs that Hydro spends each year. It represents a cost for nuclear energy of 9.5 mills/kwh., or about 19% of all nuclear costs. It includes increases in non-PWU staff that have not been justified. Therefore, IPPSO proposes the following, which can be achieved with a reduction of about 6% of nuclear staffing levels:

44. The Board should recommend to Ontario Hydro a reduction in the OM&A budget of Ontario Hydro Nuclear for the rate year of $100 million, to a net total of $729 million.

D. Fossil Business Unit

2. Mothballing Lennox and Lambton

Like the Chuchman study, the Lennox and Lambton studies tabled by the PWU have been shown to be unreliable and fraught with problems.

5. Costs

OM&A

Consistent with the across-the-board OM&A cuts recommended throughout:

45. ***The Board should recommend that the Fossil Business Unit target an additional $20 million of OM&A cost cutting for the 1995 rate year.***

V. ENERGY SERVICES AND ENVIRONMENT GROUP

B. NUGs Strategy, Programs

1. Renewable Energy Procurement - the Policy.

The current 100% shutdown in renewables procurement is poor long-term planning. If you want renewables in Hydro's future, you have to develop a plan, then go out and implement it through procurement earlier rather than later.

2. Recent History of NUG Procurement and the Need for a Strategy .

Historically, Hydro has failed to heed the warnings of the industry and others that, without a plan for acquisition of "preferred" NUGs, when you open the gates you get too much non-preferred, and not enough preferred.

3. Renewable energy procurement - now.

The need to concentrate on preferred NUGs - small, environmentally and socially preferred projects - seems to be universally agreed. Based on Hydro's own target of 3600 MW by the year 2020, action should be taken now to commence a renewables procurement strategy to accomplish that result. A target of 1000 MW by the year 2002 would be a first step in that, and would dovetail nicely with the projected system need date and quantity.

46. ***This Board should recommend to Ontario Hydro that it immediately begin aggressive procurement of renewable energy options, setting 1000 Mw as its cap by the year 2002, which cap is consistent with its longer term objective of obtaining 3600 MW by the year 2020.***

This strategy should also include consideration of the mix of procurement, including the possibility of set-asides to maximize the benefit of the procurement to the system.

47. ***This Board should further recommend that as renewable projects and project proposals develop, Hydro, in conjunction with stakeholders, should, if necessary, consider renewable technology specific set asides***

to ensure the proper portfolio mix to achieve broad experience with renewable energy options consistent with Hydro's proposed renewable energy strategy.

4. The issue of "Surplus".

Procurement of new resources should not stop in times of surplus, but it must recognize the different needs of the utility during such periods. Those needs include the importance of building a renewables base for the future, and the management of uncertainties (including both raw load and central generation performance).

48. This Board should direct Hydro to develop its draft Renewable Energy Technologies" strategy into a full and proper NUG procurement plan to be submitted for review at H.R. 23 and to include components for both preferred and non-preferred NUG options, price strategies, and different future demand scenarios based on various possible impacts from demand management, level of economic activity, population growth, and existing system performance.

5. Load Displacement Cogeneration

See section on "Energy Management Programs"

6. Integrated Resource Planning and NUGs

As with central generation options, NUG initiatives are subject to the principles of IRP. This should include consideration of displacing existing central generation units with new NUGs if the comprehensive analysis that IRP produces shows that this is in the best interests of the ratepayers.

6. Rate Impacts

Procurement of renewables as proposed by IPPSO is unlikely to have any material rate impacts. We have proposed 1000 MW out of a 33,000 MW system, with the target being at the time of system need in any case. The bulk of the new renewables projects are likely to come onstream only a year or two prior to capacity need, if they precede that need at all. Meanwhile, the substantial benefits of these projects will start to be realized by the ratepayers and Hydro.

C. Energy Management Programs

High efficiency load displacement cogeneration ("HELDC") should be treated like other efficiency options available to Hydro's customers. They should be part of the package that Hydro takes to customers (particularly those with the greatest need, such as hospitals, universities, schools and municipalities) to assist them with their energy efficiency initiatives.

49. The Board recommend that Ontario Hydro clearly allocate responsibility for HELDC to its Energy Management Branch, and that the HELDC option be treated by Ontario Hydro in its customer programs in the same way that other energy efficiency measures are treated.

The evidence is that many economic HELDC projects are being stalled by a public perception that Hydro opposes them. This is contrary to the interests of the customers.

50. The Board should recommend that Ontario Hydro expressly adopt a policy clarifying that it views HELDC as an energy efficiency initiative and expressly encourages such initiatives pursuant to its demand management strategy.

Whether a customer gains efficiency through high efficiency motors, or through HELDC, the impact on the Hydro system is the same, yet HELDC is subject to backup power rates that effectively prevent its introduction. This is an inconsistent policy that hurts Hydro's customers who could benefit from HELDC.

51. This Board should recommend to Ontario Hydro that, in furtherance of its DSM strategy, HELDC should not be subject to backup power rates.

D. Business Plan 1994-1996

2. OM&A

As with other business units:

52. The Board recommend that the Energy Services & Environment Business Unit target an additional $5 million of OM&A cost cutting for the 1995 rate year.

VI. RATES

B. Proposed Rates

2. Direct

The direct industrial rate proposed by Hydro would result in increases of between 0.0% and 0.4% to those customers. Coupled with inflation and the other options available, this amounts to a <u>reduction</u> in the real cost of electricity to industrials at a time when Hydro is in a financial crisis. While restraint in industrial rates is required for economic reasons, this much restraint has not been justified by the evidence.

"53. The Board should recommend to Ontario Hydro that the rate increase for firm power supplied to direct customers be set at the rate of inflation, 1.4%."

3. Municipal

While it is useful to try to keep rates within the level of inflation, Hydro has not proposed to do so with respect to the municipals, and has given no evidence that shows a tight rate increase sensitivity within that class. In the interests of maintaining the appropriate level of net income:

54. *The Board should recommend to Ontario Hydro that the overall rate increase for the municipal utilities average 2.2% for the rate year 1995.*

C. Experimental/Optional Rates

1. Real Time Pricing

55. *The Board recommend to Ontario Hydro that it include in its real-time pricing rates a specific adder for environmental externalities, initially to be set at 5 mills/kwh, subject to adjustment as better information on externalities values becomes available.*

56. *The Board directs Ontario Hydro to include in surplus situation, and with its financial position precarious at best, the externalities adder recommended, to reduce potential price discrimination by this rate and preclude under recovery of capacity charges. The Board further recommend that the adder so incorporated be reviewed when new generation is needed, to insure adequate collection of future energy-related fixed costs.*

2. Surplus Power Rates

IPPSO proposes that, in order to maximize the benefit to Ontario Hydro of its available surplus power, that power should be treated as a commodity and sold to those who want it at spot market rates through a bidding system. The proposed bidding system is described in detail in IPPSO's final argument. It is submitted that this bidding system will be administratively attractive to Hydro and its customers, will increase the net price for surplus power, and will obviate the need for special "buy-through" provisions.

57. *The Board should recommend to Ontario Hydro that it develop a spot market bidding system for surplus power to be sold to neighbouring utilities, Ontario Hydro direct customers and municipal utilities, to replace the current surplus power rates.*

58. *The Board should recommend to Ontario Hydro that its minimum price for surplus power sales include the value of environmental externalities applicable to that marginal generation, established initially at 5 mills/kwh.*

As with other submissions, IPPSO believes that distinct business activities should be segregated into separate business units, so that the profit or loss from those activities can be readily determined by Hydro management and by this Board, and so that the managers in those areas are properly motivated and accountable.

59. ***The Board should recommend to Ontario Hydro that the spot market bidding activities be segregated into a separate business unit which purchases from the Grid Business Unit at a small market and resells, so that the profit from this activity is transparent.***

3. Load Retention Rates

The load retention rates were not subjected to a full analysis in this hearing for two reasons. First, needed evidence on anti-competitive practices was not available to the Board due to funding constraints. This includes evidence on the competition concept of "abuse of dominant position", which is a reviewable but not illegal practice. It is this practice which allows Hydro to say truthfully that it is not offending the Competition Act, while at the same time carrying out activities that would be considered anti-competitive if fully reviewed. Second, the ubiquitous "commercial sensitivity" has prevented the Board from looking at the specific deals that Hydro says are OK. This Board cannot and should not countenance Hydro ratemaking that, while subject to the clear potential for bias or poor judgment, is shielded from review by this Board.

60. ***In order to fulfil its mandate as public regulator, this Board must recommend that, until either a complete and informed public review of any load retention rate proposals or other load retention initiatives is possible, or until a true competitive market for supply of electricity is a reality, Ontario Hydro should refrain from undertaking any such rate or customer specific initiatives.***

6. Backup Power Rates

IPPSO's final argument goes through the components of the backup power rates in detail based on the evidence before the Board. In the result, it is clear that the rates as proposed are full of serious problems, and thus seriously overstated. In light of that point-by-point analysis, it is recommended:

61. ***That the Board find that the use of embedded costs and the three elements of the rate (facilities charge, daily demand charge, and energy charge) are conceptually appropriate, but recommend the following changes to the specific parameters used to design the backup power rate:***

   a) ***That bulk transmission cost allocation be 12.2% of generation and bulk transmission costs for a 10% capacity factor, not 24% as proposed by Ontario Hydro.***

   b) ***That bulk transmission costs be assigned to the daily demand charge rather than the facilities charge.***

c) *That the power quality portion of the facilities charge should be set at 50 cents per kW-month annual average until such time as this Board can properly review a more detailed calculation of this portion of the rate.*

d) *That Hydro replace its back-up rate schedule with one that incorporates these changes, as set out at page 6 of Exhibit 6.2.12.*

EXECUTIVE SUMMARY OF LAKE SUPERIOR POWER LIMITED PARTNERSHIP

Lake Superior Power Limited Partnership ("LSP") intervened in HR 22 and confined its participation to issues concerning non-utility generation, certain aspects of Ontario Hydro's restructuring and the future outlook for electricity pricing due to the rate increases proposed by Ontario Hydro.

LSP expressed its general support toward the restructuring objectives which Ontario Hydro is undertaking. LSP agreed with the breaking of Ontario Hydro into more manageable, accountable business units and creating clear lines of authority and accountability within the Corporation.

However, LSP expressed continuing concern regarding Ontario Hydro's approach toward non-utility generation development. LSP noted that Ontario Hydro appears to discourage even energy-efficient load displacement unless it is defined as economic on Ontario Hydro's terms. LSP argued that it is difficult to assess the economics of co-generation when the costs of the societal test and environmental adders are factored in as they become available.

LSP supported Mr. Strong's visionary evidence of a de-regulated electricity marketplace and urged Ontario Hydro and the Board to ensure that the market signals be clarified from the outset. LSP recognized the difficulties facing Ontario Hydro and urged the Board and Hydro to ensure that the transition from standard rates to experimental rates and deferral rates not weaken the growing competitive forces. LSP therefore recommended that Ontario Hydro be supervised to ensure that its monopoly position be kept in check so as not to limit developing competition.

EXECUTIVE SUMMARY OF LONDON HYDRO

London Hydro intervened in these proceedings to express its opposition to Ontario Hydro's proposed rate increase to municipal electric utilities and other electricity users in the Province of Ontario. London Hydro recommended a zero-rate increase for all electricity users for 1995.

London Hydro claimed that electricity prices are presently uncompetitive and that any increase will make the electricity product even less competitive. London Hydro suggested that a zero increase was worth the risk, particularly when Ontario Hydro has stated that a zero increase is "achievable". London Hydro's intervention recommended that Ontario Hydro should become more active in trying to increase its sales to increase its revenue stream and spread out its fixed costs over more sales volumes. Concern was expressed that Ontario Hydro's direct industrial customers are going to receive a lesser increase than municipal electric utilities. London Hydro opposes granting lower rate increases to industrial customers while asking municipal electric utility customers to pay more. Evidence was presented that London Hydro's customers are leaving the system for alternative fuels because the electricity product is not competitive.

London Hydro described the particular programs which it has undertaken in order to market the electricity product in the London area.

The London Hydro intervention opined about an Ontario Hydro "industrial rate strategy" which envisages residential rates subsidizing industrial rates, gas rates escalating faster than electric rates, thus discouraging generation competition, and NUG deferral payments buying-off competition until such time as Ontario Hydro is in a less threatened position to deregulate generation.

London Hydro recommended that the Ontario Energy Board urge the Minister that a zero-rate increase to all customers is appropriate for 1995.

EXECUTIVE SUMMARY OF MUNICIPAL ELECTRIC ASSOCIATION

APPENDIX A

CHAPTER 1: RESTRUCTURING

The Power Corporation Act continues to govern Ontario Hydro, and continues to make it clear that Ontario Hydro's role in economic development is to provide low-cost electricity. No mandate has been received from the people of Ontario, through the legislature or otherwise, for Ontario Hydro to assume for itself any other, or broader, mandate. Ontario Hydro has now established for itself a social and economic mission "to help Ontario become the most energy efficient and competitive economy in the world, and a leading example of sustainable development". The MEA has great concern about this new mission statement, which omits any reference to providing low-cost, reliable electricity.

Ontario Hydro can best serve the needs of the Province of Ontario by providing electricity at the lowest feasible cost. It can best serve the environmental objectives of the province by pursuing the mandate it has been granted by its governing statute, i.e. promoting energy efficiency, and by meeting legislated environmental standards.

Ontario Hydro's Task Force on Change undertook an ambitious assignment and made an impressive contribution in a short time span. It immediately saw the need to move Ontario Hydro to a business-like footing. Although the MEA has many concerns about how sustainable these savings will be in the long term, the Task Force on Change's recommendations are directionally correct.

Ontario Hydro has adopted a "price dictates cost" strategy — it assesses the appropriate price for its product having regard for market conditions, and endeavours to control its costs accordingly. This is an appropriate direction; however, Ontario Hydro must bear in mind that its financial integrity, and the Power Corporation Act, require it to recover its costs through rates. It cannot meet the competition's price if that price does not permit Ontario Hydro to recover its full costs.

The corporation has also acknowledged the need to position itself to meet competition. The MEA supports Ontario Hydro's recognition of the imperative to moderate prices and to be responsive to customer needs. But Ontario Hydro must exercise care to not adopt strategies which use inappropriate mechanisms, such as cross-subsidies between customer classes.

Ontario Hydro is also contemplating the incorporation of externalities into decision making through full-cost accounting and monetization of externalities to fulfil its mission of sustainable energy development. Proceeding unilaterally with monetization will impose costs on Ontario Hydro not faced by its competitors. Other mechanisms to pursue environmental objectives, including market-based mechanisms or regulation across the entire energy sector, should be examined by Ontario Hydro, in consultation with Government and this Board.

The MEA also has serious process concerns arising from the Task Force on Sustainable Energy Development. The recently expanded powers of the CEO of Ontario Hydro have resulted in a number of significant recommendations of the Task Force on Sustainable Energy Development being pursued without approval from the Board of Directors. Serious issues such as monetization and full-cost accounting must be fully debated and decided in an appropriate public inquiry.

The creation of separate business units within Ontario Hydro, with full accountability for costs and performance, increases transparency such that the full economic costs of resource use are evident to the user. The creation of separate business units also provides opportunities to decentralize decision making, increase accountability, and institute appropriate performance incentives. Ontario Hydro adopted the recommendation of the Task Force on Change to create three major components: Electricity Group, Energy Services Group, and Ontario Hydro Enterprises. The Electricity Group is further subdivided into four business units: Nuclear, Fossil, Hydroelectric and the Grid. As indicated in evidence presented by Mr. Murray Davidson of Arthur Andersen & Co. on behalf of the MEA, the further separation of each generating plant as a separate business unit with its own financial accountability would improve performance and should be implemented as soon as possible.

The allocation of assets and capital costs to business units is a fairly straightforward process, although adjustments will have to be made in future years to accommodate the needs of a fully effective transfer pricing scheme. However, the MEA is concerned that certain responsibilities should be reallocated. In particular, the Grid should be separated from the generating business units to ensure the equal treatment of internal and external resources. The structure of the Energy Services and Environment Group (ES&E) appears to be quite inappropriate. Ontario Hydro has allocated functions to ES&E which were not recommended by the Task Force on Change. Load forecasting, rates and many other functions should be transferred to other business units. Further, the ES&E Group's principal businesses, demand management and the retail business function, should be separated into distinct business units with net income accountability.

The MEA is also concerned that there has been an excessive delegation of authority in responsibility from the Board of Directors to management, and in particular to the CEO. The public interest mandate of Ontario Hydro, and the absence of shareholder accountability, suggests that it is inappropriate to delegate such extensive control of the utility. Similarly, the MEA is concerned about the requests to reduce controls under the Power Corporation Act. Such increases in authority should wait until fundamental changes have been effected in the legislative and regulatory regimes so that the requisite high level of accountability can be achieved.

As part of its restructuring, the corporation has drastically reduced its planned capital expenditures for the decade. There is reason for concern that the corporation may not be optimizing its investments from the longer-term

perspective. The Nuclear and Hydroelectric Business Units say they are already underfunded. The MEA feels strongly that analyses must be done to determine whether the corporation can continue to operate reliably and safely with the reduced levels of capital investment.

As a further part of its restructuring, Ontario Hydro undertook a massive reduction in staff levels. Substantial reduction in staffing was necessary for the corporation's survival. However, the MEA is concerned that by not having discriminated among employees, and by offering incentives to leave on a company-wide basis, staff reductions did not ensure retention of the best employees and may indeed have encouraged the best employees to leave. The corporation is therefore faced with the prospect of substantial increments to staff levels in the future. Any future staff reduction programs must bear this in mind and be appropriately designed.

The corporation has made an admirable start in achieving cost transparency and accountability, but these mechanisms alone likely cannot sustain cost efficiencies. There must be a significant effort to implement effective, performance-based compensation and performance measurement criteria. Evidence called by the MEA in the person of Mr. Murray Davidson of Arthur Andersen & Co. makes it clear that activity-based management, benchmarking, and performance-based compensation must be part and parcel of a utility restructuring in order to achieve significant cost savings for customers. It is also important to recognize that competition in the generation of electricity will help ensure sustainability of cost savings.

In previous years, the MEA and others have called for a review of the regulatory regime in recognition of the requirement that explicit controls be placed on the corporation. These calls for implementation of a true regulatory regime have not been heeded. The objectives of the restructuring, and the methods by which the corporation proposes to further these objectives, clearly render the reevaluation of the regulatory regime imperative. This is particularly so in light of the increased flexibility which is being sought by Ontario Hydro, including with respect to rate setting. The onset of competitive forces further creates the need for a revised regulatory framework. It may not be appropriate for one of the competitors, being Ontario Hydro, to control the planning process which will determine the extent to which the resources of competing generators will be acquired by the grid system.

The Power Corporation Act requires Ontario Hydro to maintain a reserve for stabilization of rates and contingencies (the "Reserve Account") to be used, among other things, to meet contingencies arising in the operations of the corporation. The statutory debt retirement fund ("SDR") is legislated to ensure retirement of debt of the corporation. In Fiscal 1993, Ontario Hydro applied these accounts to its massive restructuring costs. In the MEA's view, it is inappropriate for the corporation to apply its accumulated equity to cover foreseeable costs. Such a practice is incompatible with the principle that the corporation should recover all its costs through its rates. The SDR account must be maintained as required by the Act. Write-offs should only be charged against the Reserve Account, and if those charges exceed the credit balance, they should be reflected by a deficit in the Reserve Account. If these equity accounts are combined for presentation in Ontario Hydro's financial statements, then notes to those statements should record the status of the separate accounts. The municipal electric utilities must be consulted prior to any such extraordinary charges being taken.

The write-off of the restructuring costs has resulted in an unprecedented debt/equity ratio for the corporation of 92 per cent. This reflects a decision to sacrifice short-term balance sheet ratios in the interest of keeping rates low over the next few years. Without the provincial guarantee of its debt, such a ratio would not be tolerated by the capital markets. The MEA is very concerned that the move to a commercial footing is made possible by the most non-commercial of circumstances — the provincial guarantee. There will be a tension between the pressure to meet the rate objectives set by the corporation over the next few years and the objective of improving the debt/equity ratio. In the view of the MEA, Ontario Hydro must give the highest priority to improving the debt/equity ratio. Rates should not continue to be subsidized at the expense of a substantial exposure to the province on its guarantee of the debt.

In 1993 Ontario Hydro took significant write-offs in respect of unamortized deferred costs and capacity reductions. The practice of extensive deferral of costs had distorted the true financial status of the corporation and postponed achievement of financial soundness objectives, and the MEA in general supports the decision by Ontario Hydro to write-off these unamortized costs, provided that it does not adopt a practice of taking year-end extraordinary charges.

It must be realized that taking the write-offs in 1993 does not in itself do anything to reduce the real costs of the corporation. Rather, the write-offs simply have the effect of changing the pattern of cost recognition by applying what would otherwise have been future costs against past earnings, to enable Ontario Hydro to offer lower rates in the short term. Only if the corporation demonstrates that it has the will and ability to recover sufficient net income in the long run to return it to financial soundness, will the financial restructuring be of lasting benefit.

1.1 OBJECTIVES OF RESTRUCTURING

1.1.1 Corporate Mission

1. The Corporate Mission statement of Ontario Hydro should be revised to identify, as the primary mandate of the corporation, the responsibility to provide safe, reliable, low-cost electricity.

1.1.2 Task Force on Change — Process

1. The overall thrust of the recommendations of the Task Force On Change to move Ontario Hydro to function on a more business-like basis should be accepted.

1.1.3 Corporate Strategy

1. Ontario Hydro's new corporate strategy — that price dictates cost — is appropriate to place emphasis on the need to reduce costs, but rates must still be set with a view to fully recovering all necessary costs.

2. Ontario Hydro's corporate strategy should explicitly recognize the need to move the corporation to a more cost-effective model.

3. Ontario Hydro's policy of managing competition during a time of capacity surplus should be accepted. Ontario Hydro should not implement policies or programs which tend to sustain its monopoly position in generation beyond the current period of capacity surplus.

4. Ontario Hydro should not adopt pricing policies which assume a transition to retail competition in electricity sales.

5. Ontario Hydro, in conjunction with the Government of Ontario and this Board, should develop mechanisms for promoting energy efficiency and sustainable development which apply across all relevant energy sectors.

6. Full-cost accounting, with monetization of externalities, should not be adopted by Ontario Hydro as a basis for either operating or capital decisions.

7. Ultimate responsibility for any corporate integrated resource planning that is deemed necessary should reside with the regulator of Ontario Hydro.

1.2 ORGANIZATIONAL RESTRUCTURING

1.2.1 PRINCIPLES

1. The basic principle of reconfiguring Ontario Hydro into business units on the basis of function is appropriate.

2. The establishment of each generating plant as a separate business unit should be implemented as soon as possible.

1.2.2 THE PROCESS OF RESTRUCTURING

1. The allocation of assets, costs and responsibilities, as determined in the restructuring process should, with some exceptions, be accepted.

2. Separation of the Grid from the Generating Business Units should be undertaken as soon as possible.

3. The Energy Services & Environment Group should be disbanded and reconstituted as the Energy Services Company, responsible for demand management and energy services. The other functions allocated to ES&E should be reallocated to the other business groups and, in the case of the retail business function, a separate business unit established.

1.2.3 Authority and Accountability

1. The recently increased authorities and autonomy of the Chief Executive Officer of Ontario Hydro should be reduced.

1.2.4 Capital Reductions

1. Ontario Hydro should maintain affordability as a criterion for making capital investments.
2. Ontario Hydro should immediately undertake a comprehensive assessment of its capital program to ensure that investments are being optimized over the long run and to ensure that system performance is not being unduly compromised.

1.2.5 Staff Reductions

1. Ontario Hydro should carefully monitor the deployment of its remaining employees to ensure that necessary work programs have not been compromised in the process of restructuring.

2. Ontario Hydro should ensure that future staff reductions are carried out in a more systematic fashion and on a non-voluntary basis.

1.2.6 Will the Objectives of Restructuring be Achieved?

1. In order to achieve the objectives of the restructuring in the longer term, Ontario Hydro should fully implement benchmarking, activity-based management techniques and appropriate performance-based compensation systems.

1.2.7 Implications for Current Regulatory Process

1. The current regulatory regime should be declared to be inadequate, and this Board should recommend that a hearing be convened to determine the appropriate regulatory framework which should be implemented.

1.3 FINANCIAL RESTRUCTURING ISSUES

1.3.1 Consolidation of Accounts

1. Ontario Hydro should recognize the importance of collecting all reasonably foreseeable costs through rates.

2. Ontario Hydro should be permitted to show a consolidated retained earnings account, provided it discloses, in the notes to the financial statements, the separate balances in the Reserve and accumulated SDR accounts.

3. Regarding the write-offs taken by Ontario Hydro in 1993, the accumulated SDR account should not be reduced by the amount of the write-off which is in excess of the credit balance in the Reserve Account. Such excess amount should be recorded as a deficit in the Reserve Account.

4. Ontario Hydro should not take extraordinary charges against equity without engaging in prior consultation with the municipal electric utilities.

1.3.2 Debt Structure/Debt Reduction Plan

1. Ontario Hydro should give highest priority to improving the debt/equity ratio as expeditiously as possible.

2. Ontario Hydro should develop a target debt/equity ratio and a definitive plan for its achievement and present this plan to this Board at HR 23.

1.3.3 Asset Write-Offs

1. The asset write-offs taken by Ontario Hydro in 1993 are, for the most part, appropriate.

1.3.4 Achievement of Objectives of Financial Restructuring

1. Ontario Hydro should recognize that the financial restructuring itself does not improve its financial position. The financial restructuring will only benefit Ontario Hydro to the extent that it helps position the corporation to achieve its financial objectives in the long run.

CHAPTER 2: CORPORATE OVERVIEW

Ontario Hydro's strategic planning principles are potentially in conflict, and must be priorized to enable the corporation to focus its efforts. In the current environment, it is clear that cost control and the inculcation of a business-like culture must take top priority.

Ontario Hydro has moved to a top-down budgeting approach, which is a positive development in the present circumstances. However, there is a real risk that the strong emphasis on short-term financial performance will result in necessary work programs being cut, with potentially serious long-term consequences, particularly in the nuclear area. The MEA accordingly recommends that Ontario Hydro should accelerate its efforts to move quickly in development of a planning approach to optimize capital expenditures.

The MEA agrees with Ontario Hydro's move toward reliance on a synthesis of external economic forecasts, and accepts the updated forecasts of economic activity and inflation. However, there are significant risks for interest rates and the Canadian dollar, and the MEA foresees a consequent detrimental net income impact of at least $130 million in 1995. There are additional downside risks to net income with respect to nuclear performance, achievement of targeted levels of OM&A reductions, potential litigation settlements and potential loss of customers to non-utility

generation. These risks threaten achievement of the statutory debt retirement requirement for 1995. Other budgets within Ontario Hydro must be critically reviewed to formulate a plan to counter this risk.

Ontario Hydro forecasts its load to increase by 0.3 per cent in 1994 and 1.4 per cent in 1995. This forecast should be accepted, and, because primary sales in 1995 are anticipated to be 1.7-per-cent higher than those assumed in the business plan, Ontario Hydro's forecast of net income for 1995 should be increased by approximately $110 million.

Ontario Hydro's increased reliance on floating-rate debt will contribute to maturity diversification of its debt portfolio. However, this shift will not lead to long-term interest cost savings or an automatic mitigation of the effect on Ontario Hydro of a rise in interest rates. Further, Ontario Hydro should not run the increased risk of issuing any greater portion of its debt in U.S. dollars.

Ontario Hydro has implemented recommendations for reducing the depreciation period for certain assets, including nuclear assets. These policy changes move the corporation toward a more appropriate, conservative approach.

Ontario Hydro has also shifted toward accounting policies which are generally more consistent with those of a commercial enterprise. This shift includes the write-offs of certain deferred costs and of assets with doubtful future value. However, Ontario Hydro's approach is not consistent or comprehensive. In particular, Ontario Hydro's policies for recognition of foreign exchange losses and for capitalizing various DSM, load-building, and customer-retention costs cannot be justified, and appear to be motivated by short-term benefits to net income.

Ontario Hydro has again failed to reduce the premiums paid to Ontario Hydro employees — indeed, the differential between Ontario Hydro compensation levels and those of comparable employers has increased in some cases, despite the repeated urgings of the Ontario Energy Board. Ontario Hydro employees must realize that their own long-term security may be threatened by these differentials.

Ontario Hydro is proposing a form of performance-based compensation for its executives. However, the proposal for 1995 is not realistic in that far too little of the compensation will be performance-based. The MEA believes it is in the corporation's interest to be a leader in implementing effective performance-based compensation, at least at the executive and management levels of the corporation.

Ontario Hydro should move to implement effective benchmarking and activity-based management throughout the organization in an effort to encourage cost efficiencies, recognizing that these steps may be more easily introduced in certain areas (e.g. Fossil) than in others (e.g. Nuclear).

The corporation has implemented an internal transfer pricing scheme, to be significantly revised for 1995. Transfer pricing is intended to move Ontario Hydro toward a commercial modality and competitive market behaviour internally. While transfer pricing may help to increase transparency of costs within the corporation, other mechanisms are necessary for incentive creation.

2.1 CORPORATE BUSINESS PLAN FOR 1994-1996

2.1.1 Business Planning Principles

1. The MEA supports the business planning principles adopted by Ontario Hydro. However, Ontario Hydro should priorize these principles to explicitly recognize the paramount importance of improved financial performance.

2.1.2 Budgeting And Planning Process

1. Ontario Hydro should, for the time being, continue its emphasis on the top-down approach to business planning and budgeting.

2. Ontario Hydro should accelerate its efforts to develop a planning approach to optimize capital expenditures.

2.1.3 Capital Budgeting Process

1. The ceilings imposed on Ontario Hydro capital spending should be accepted.

2. The capital budgeting process is currently in flux and improvements should be implemented by Ontario Hydro as quickly as possible.

2.1.4 Economic Forecasts And Outlook

1. Ontario Hydro's forecasts of 1995 GDP growth and inflation should be accepted. The forecast of interest rates for 1995 should be increased by 1 to 2 per cent. The forecast of the dollar for 1995 should be decreased by three to five cents.

2.2 LOAD FORECAST

1. The primary load forecast should be accepted, but the risk is that it is too low.

2.3 NET INCOME FORECAST

2.3.1 Overall Corporate Target

1. Ontario Hydro's forecast of net income for 1994 should be increased to $1 billion.

2. Ontario Hydro's forecast of net income for 1995 should be considered in jeopardy and appropriate contingency plans must be made to meet SDR in 1995.

2.4 FINANCING STRATEGY

2.4.1 BORROWING STRATEGY/RISK-MANAGEMENT STRATEGY

1. The MEA supports Ontario Hydro's increased reliance on floating-rate debt as contributing to maturity diversification of Ontario Hydro's debt portfolio. Ontario Hydro should recognize that such reliance on floating-rate debt will not reduce interest cost over the long run. Insufficient analysis has been performed as to the optimal degree of reliance on such debt, and Ontario Hydro should undertake such an analysis.

2. Ontario Hydro should conduct an analysis of the impact of increased floating-rate financing on the risk of achieving forecast levels of the debt ratio.

3. Ontario Hydro's reliance on U.S.-dollar denominated debt, floating rate or otherwise, should be minimized.

4. Performance of Ontario Hydro's debt-management strategy should be assessed against, and compensation determined by comparison to, external benchmarks such as the performance of other debt portfolio managers, rather than against targets set internally by Ontario Hydro.

2.5 DEPRECIATION

1. The recommendations contained in the 1993 and 1994 reports of the Depreciation Review Committee are appropriate and should be accepted.

2.6 ACCOUNTING POLICY CHANGES

1. The revised accounting treatment of NUG contracts, which treats specifically identifiable advance payments as long-term accounts receivable, should be accepted as appropriate at this time.

2. The revision to the demand management accounting policy to permit capitalization of regional delivery costs and incentive payments to third parties should be rejected.

3. The proposed changes to the demand management accounting policy, which would permit Ontario Hydro to capitalize cost associated with load building, customer retention and economic development activities, should be rejected.

4. Revisions to the pension accounting policy, which moderate the conservative bias in Ontario Hydro's approach to pension valuation, should be accepted as appropriate.

5. The proposed policy to establish a separate heavy water sales inventory account should be accepted as appropriate.

6. The proposed use of embedded cost of debt for calculation of the interest capitalization rate should be accepted as appropriate.

2.7 HUMAN RESOURCES PLAN

2.7.1 Compensation

1. Compensation premiums paid to Ontario Hydro employees must be eliminated.

2.7.2 Pay For Performance

1. Ontario Hydro should reject a bonus-pay system for executive performance compensation. Ontario Hydro should immediately adopt a system whereby performance pay represents an inherent component of total compensation.

2. The proportion of total compensation for executives that is performance based should be increased to at least 30-50 per cent.

3. Performance pay should be introduced at the managerial level.

4. Ontario Hydro should develop appropriate performance measures for incentive compensation. The customer satisfaction criterion should refer to Ontario Hydro's own customers.

2.7.3 Change in Employment Philosophy

1. Ontario Hydro should implement the transition from a policy of employment continuity to a policy of enhanced employability.

2.8 CORPORATE PERFORMANCE MEASURES

2.8.1 Benchmarking/Activity-Based Management

1. This Board should adopt the evidence presented on behalf of the MEA on benchmarking and activity-based management.

2. Benchmarking should be completed and effectively implemented across the corporation as quickly as possible, along with complementary performance-based compensation schemes.

3. Activity-based management should be pursued and implemented as far as possible.

4. It should be recognized that implementation of benchmarking and activity-based management complement, but do not themselves constitute, performance incentives.

2.9 TRANSFER PRICING — POLICY

1. Ontario Hydro should continue to develop a transfer pricing policy and recognize that transfer pricing is an important part of the process of moving towards a more cost-effective model for the corporation. Ontario Hydro must recognize that transfer pricing, unless combined with performance incentives, is unlikely to yield significant and sustainable benefits.

CHAPTER 3: ONTARIO HYDRO ENTERPRISES

As part of its restructuring, Ontario Hydro has set up Ontario Hydro Enterprises which consists of two entities: Ontario Hydro Technologies (OHT) and Ontario Hydro International Inc. (OHI).

OHT is Ontario Hydro's research and development arm, and plans to become independently profitable by commercialization of new technologies. However, it is clear that without preferential treatment from the other business units OHT would have difficulty surviving. To the extent that practical research can be better performed within business units, there is no need for OHT to function for this purpose. However, this Board should also be concerned that primary or basic research, with potential long-term benefit to the corporation, may not be adequately funded under the currently proposed course for OHT. A decision should be made as to whether this type of research will be carried out by OHT and appropriately funded by government and the corporation.

OHI was established to market Ontario Hydro technologies internationally and to take equity positions in foreign investments. This type of speculative activity is inappropriate for Ontario Hydro and puts increased and involuntary investment risk on the ratepayer. To the extent that there may be specialized marketing services that can benefit other business units, such services should be placed within the corporate function or offered on a fee-for-service basis.

It appears that neither of OHE's businesses has been required to assume responsibility for any debt of the corporation, nor have they been required to compensate the relevant business units where technologies which are now in OHE's domain were developed. This is inconsistent with the main objective of the restructuring — to put the corporation on a business-like footing. This situation must be rectified either by an appropriate allocation of debt or by compensation from the OHE Group to the Electricity Group.

3.1 ONTARIO HYDRO TECHNOLOGIES

3.1.1 Strategy

1. Ontario Hydro must move quickly to decide whether OHT will be engaged in long-term research or will focus on research with short-term commercial payback. If long-term research is to be supported, then it should be funded through government grants or corporate-level appropriations.

3.2 ONTARIO HYDRO INTERNATIONAL

3.2.1 Strategy

1. Ratepayer monies and the cost of electricity in Ontario should not be put at increased risk through foreign equity investments by Ontario Hydro, through OHI or otherwise.

2. Ontario Hydro should review whether the marketing functions performed by OHI should be placed within the corporate function as a service available to each of the business units or offered on a fee-for-service basis.

3.3 NET INCOME

3.3.1 Debt

1. If OHE is to continue to exist, its two entities must be allocated an appropriate portion of Ontario Hydro's debt, or provision must be made for the fair payment for the benefits which have accrued to OHT and OHI.

CHAPTER 4: ELECTRICITY GROUP

Ontario Hydro's transfer pricing scheme for 1995 has not been extensively developed. The MEA acknowledges that the transfer pricing initiative enhances the accountability and transparency of the utility. However, transfer pricing itself does not create the kinds of incentives present in a competitive marketplace. Further, Ontario Hydro's transfer pricing scheme does not, and probably cannot, provide a basis for long-term capital decision making.

Balancing payments played a large role in the 1994 transfer pricing scheme. Balancing payments distort the measurement of business unit profitability, and should be eliminated. This will be difficult to accomplish without revaluation of assets, setting drastically different rates of return for hydroelectric and nuclear assets or focusing on marginal operating decisions only. The MEA's expert witness presented alternative approaches which might improve the effectiveness of the transfer pricing scheme.

Ontario Hydro has proposed moving from a transfer pricing scheme which includes separate payments for capacity and energy, to a single-tariff scheme known as the Levelized Unit Energy Cost (LUEC) approach. This would be

an inappropriate step, which would result in pricing based on forecast or hypothetical costing of future generation rather than market prices.

There is a forecast increase in transmission-based outages over the next several years. The Grid Business Unit plans to carry out lower-than-optimal preventive maintenance to its physical plant. Ontario Hydro must make every effort to allocate resources within the existing budget to avoid impairing the reliability of the transmission system.

The Hydroelectric Business Unit's physical assets are aging. There has been significant underfunding in recent years, possibly resulting in "harvesting of assets". Although in the current circumstances Hydroelectric's business plan should be accepted, the proposed capital expenditures of Hydroelectric in 1995 are not likely sufficient to address the underfunding concerns. Ontario Hydro should undertake a review of the appropriate trade-offs between performance, OM&A and capital expenditures to minimize the risk of adverse long-term consequences of underfunding.

Ontario Hydro's Nuclear Business Unit (OHN) accounts for the majority of the corporation's produced energy. OHN's General Manager's initiatives are encouraging; however, the absence of adequate benchmarks permits only limited confidence in the adequacy of the nuclear budgets. The unforgiving nature of nuclear technology suggests that Ontario Hydro must not exert excessive pressure on nuclear budgets. The pressure on the nuclear budget presents considerable risk that the forecast 75-per-cent capability factor for OHN will not be achieved. The decision by Ontario Hydro to shut down Bruce Unit 2 appears to be prudent, particularly given the corporation's excess capacity.

Ontario Hydro's Fossil Business Unit has no mechanisms in place to foster long-term capital decisions. Instituting competition among fossil stations would go part way toward this end, and would position Fossil for the day when it must compete with other market entrants. Ontario Hydro's decisions to mothball Lennox TGS Units 3 and 4 and Lambton TGS Units 1 and 2 are appropriate. Fossil's planned OM&A expenditures should be accepted as appropriate at this time.

4.1 GRID SYSTEM BUSINESS UNIT

4.1.1 Transfer Pricing — mechanics and costing

1. Ontario Hydro should recognize that transfer pricing cannot deal with both short- and long-term considerations. An alternate scheme, complementary to transfer pricing, should be developed to ensure optimality of long-term decisions such as capital investments.

2. Ontario Hydro should retain the dual capacity/energy approach to transfer pricing. Capacity payments should continue to be based on market prices. Energy payments should continue to be based on short-run marginal costs. The LUEC approach proposed for the 1995 transfer pricing scheme should be rejected.

3. Full-cost accounting is not appropriate for use in the transfer pricing mechanism and should be rejected.

4.1.2 Business Plan 1994-1996

1. Ontario Hydro should make every effort to allocate resources to restore performance of the transmission grid to previous levels within the existing corporate budget.

2. Ontario Hydro's shift toward predictive maintenance appears to be appropriate for the transmission function and should be accepted.

4.2 HYDROELECTRIC BUSINESS UNIT

4.2.1 Business Plan 1994-1996

1. Ontario Hydro's 1995 business plan for the Hydroelectric Business Unit should be accepted.

2. Ontario Hydro must develop a program to assess the appropriate trade-offs between plant performance, OM&A, and capital expenditures in the Hydroelectric Business Unit.

4.3 NUCLEAR BUSINESS UNIT

4.3.1 Business Plan 1994-1996

1. The 1995 business plan for Ontario Hydro Nuclear should be accepted.

2. Ontario Hydro estimates of OM&A costs presented to the Ontario Nuclear Cost Inquiry (ONCI) should be recognized as outdated and not used as a benchmark for Nuclear OM&A costs. Ontario Hydro should accelerate its benchmarking activities in OHN to ensure nuclear performance is not impaired.

4.3.2 Bruce Unit 2 Shutdown

1. The decision by Ontario Hydro to shut down Bruce Unit 2 should be accepted as appropriate.

4.4 FOSSIL BUSINESS UNIT

4.4.1 Business Plan 1994-1996

1. Internal competition, through option contract bidding among fossil stations, should be instituted by Ontario Hydro.

2. Ontario Hydro should move quickly to implement benchmarking as fully as possible in its Fossil Business Unit.

4.4.2 Mothballing - Lennox and Lambton

1. The decision by Ontario Hydro to mothball Lennox TGS Units 3 and 4 and Lambton TGS Units 1 and 2 should be accepted.

4.4.3 OM&A Expenditures

1. Ontario Hydro's planned Fossil OM&A expenditures should be accepted as appropriate at this time.

CHAPTER 5: ENERGY SERVICES AND ENVIRONMENT

Ontario Hydro's restructuring resulted in the creation of the Energy Services and Environment (ES&E) Group. Although the Task Force on Change concluded that the function of this Group should be primarily limited to energy management, electrical inspections and Ontario Hydro's retail business, ES&E was inexplicably assigned a myriad of functions including the ones just mentioned, as well as rates, load forecasting, environment and sustainable development. Most of these functions should be located elsewhere in the corporation.

The MEA recommends support for many of the energy-services objectives outlined by Ontario Hydro, but has a number of continuing concerns. The MEA is of the view that Ontario Hydro must not become an agent of economic development, industrial strategy or other social objectives (see Section 1.1.1 above). The energy service mandate should be limited to providing customers with the tools to make wise energy choices and to lower their energy costs.

Although it is presently in Ontario Hydro's ratepayers' interest to have Ontario Hydro defer NUG acquisitions and customer-owned load-displacement generation, the means by which this is done can be inappropriate and must be subject to public review.

In recent years, Ontario Hydro engaged itself in one of the most ambitious and expensive demand management programs on the continent. Rates today are 5-per-cent higher than they would have been without the initiative. It has since become clear that the corporation is in a significant capacity surplus situation. Many demand management programs no longer yield benefits to customers. Ontario Hydro must start giving greater consideration to the rate impacts of its programs. Part of the failure of Ontario Hydro's demand management practices is due to the use of the Total Customer Cost Test, with which this Board has expressed its concern in the past. Ontario Hydro should give greater weight than it has in the past to the impact of demand management programs on customer rates.

The MEA has expressed consistent concern with reliance on cash incentives to promote energy efficiency measures. The MEA is therefore encouraged by Ontario Hydro's reduction of its incentive payments, and urges the complete elimination of cash incentive payments. Ontario Hydro should avoid engaging in incentives to encourage fuel switching, which only force electricity ratepayers to subsidize natural gas customers. Market forces provide sufficient incentive to make appropriate fuel choices.

The MEA is also encouraged by Ontario Hydro's emphasis on avoiding lost opportunities in its energy efficiency programs, as opposed to participating in discretionary initiatives (e.g. retrofits).

Ontario Hydro has effectively appropriated 2.4 per cent of corporate revenues for 1994 demand management expenditures, despite the Task Force on Change's proposal that 1.5 per cent be allocated for this purpose. Funding for demand management should be based on a bottom-line objective so that ES&E's demand management activities are put on a business-like footing consistent with the overall direction of the corporation. ES&E should contract for DSM capacity with the Grid Business Unit. Indeed, ES&E as a whole should be reorganized to permit the establishment of net income objectives for those functions amenable to such an approach. Functions not amenable to this should be reallocated to the corporate function or other business groups where they would be more logically located.

Ontario Hydro's continued refusal to reevaluate and, if necessary, write-off deferred and unamortized demand management expenditures, is inexplicable. As of 1995, the book value of Ontario Hydro's deferred and unamortized demand management assets will be in the range of $600 million, despite the fact that many of its existing demand management programs are no longer providing net benefits. The policy of capitalizing demand management expenditures should be halted. Ontario Hydro should not also proceed with its proposal to capitalize economic development and load-retention costs.

5.1 ENERGY SERVICE PLANNING AND STRATEGY

1. The energy services function should be focused on providing energy-efficiency services to help customers make wise energy choices and lower their energy-service costs.

5.2 NUG STRATEGY AND PROGRAMS

1. Ontario Hydro's initiative to defer the development of uneconomic non-utility generation at this time should be accepted as appropriate.

2. Ontario Hydro's current practices regarding NUG deferral payments and NUG deferral rates should not be approved at this time. Consideration of such payments or rates should only be forthcoming if Ontario Hydro agrees to public and regulatory review of such arrangements.

3. Ontario Hydro's current policy regarding renewable energy projects and small load- displacement generation should be accepted as appropriate.

4. Ontario Hydro should explore appropriate arrangements for involving private developers in the development and redevelopment of small hydraulic sites.

5.3. ENERGY MANAGEMENT PROGRAMS

5.3.1 Demand Management Targets

1. Ontario Hydro should reassess its demand management targets for 1994 and 1995 based upon current system requirements.

5.3.2 Screening Tests

1. While Ontario Hydro can continue to use the Total Customer Cost Test as the hurdle test for screening demand management programs, substantially greater emphasis should be placed on the Rate Impact Measure Test in determining which demand management initiatives are to be undertaken.

5.3.3 The Use of Cash Incentives

1. The MEA supports Ontario Hydro's decision to reduce reliance on cash incentives in its energy management programs. Ontario Hydro should move to eliminate the use of cash incentives.

5.3.4 Lost Opportunities and Discretionary Investments

1. The MEA supports Ontario Hydro's move to postpone discretionary demand management initiatives and to concentrate on the lost opportunity segment.

5.3.5 Fuel Substitution

1. The MEA supports Ontario Hydro continuing to make available to its customers information on alternative fuels. Cash incentives should not be provided by Ontario Hydro to promote fuel switching.

5.4 BUSINESS PLAN 1994-1996

5.4.1 Revenues

1. Ontario Hydro's energy management programs should be funded on a fee-for-service basis, with contracts established for DSM capacity between the ES&E Group and the Grid Business Unit.

5.4.2 Depreciation

1. The MEA recommends that Ontario Hydro not permit any further deferral and amortization of demand management expenditures.

5.5 NET INCOME

1. Ontario Hydro should establish appropriate net income targets for the demand management and retail business functions of the ES&E Group.

CHAPTER 6: RATES

Ontario Hydro has committed to rate increases for 1995 and 1996 of no greater than the rate of inflation. The corporation is forecasting an inflation rate for 1995 of 1.4 per cent, and therefore is proposing an all-customer average rate increase of 1.4 per cent. Although the choice of a rate increase not greater than the rate of inflation is essentially arbitrary, it does project a commitment to substantially ameliorate price increases and to not further erode the competitive position of the province by increases in the cost of power. However, Ontario Hydro must be prepared to revisit its rates strategy in the future if the requisite cost savings cannot be achieved without compromising system performance and reliability.

The MEA has serious concerns regarding the customer class rates proposed for 1995. Although ostensibly, the Ontario Hydro proposal is for the municipal utility class rate to increase by 1.7 per cent and for the direct class rate to increase by 1.1 per cent, the increase for the directs is actually zero per cent once the effect of the reduction of the DDS discount is factored in. The zero-per-cent increase for the directs is accomplished by over-collecting from the rural retail customer class. With a further reduction of common costs, the corporation could achieve an average municipal utility class increase of 1.4 per cent and an all-customer rate increase of 1.1 per cent. This proposal is far more in keeping with a commitment to rates at or under the rate of inflation, if that commitment is meant to apply to Ontario Hydro's customers as a whole, as opposed to a select group of industrial customers.

Ontario Hydro will phase in a substantial reduction of the DDS discount for its direct customers over three years. The reduction is required to reflect the reality that the value to the system of interruptible load is substantially diminished in the present capacity-surplus environment. The decision to phase in the reduction over three years requires a substantial subsidy by all non-direct customers. Future discount rate proposals should be very carefully scrutinized in light of this unfortunate experience.

Ontario Hydro is proposing six experimental and optional rates for 1995 as part of its move toward market-based pricing. Ontario Hydro must realize that it can and must be responsive to customer needs, but cannot do so through rates which fail to meet accepted rate-making principles. Ontario Hydro's proposed experimental and optional rates also permit excessive free ridership and have not been demonstrated to achieve the objectives of economic development and capacity surplus utilization.

The MEA understands and supports Ontario Hydro's desire to become more responsive to market conditions. However, lack of supporting data, risks to other customers and/or deviation from acceptable rate-making practices raise concerns.

The Real Time Pricing II rate runs a serious risk of free ridership and of lost revenues through marginal cost pricing.

The Surplus Power rate, although on the surface, offers a different condition of service, appears to actually be a discount rate, given the low level of interruptions and the absence of screening for free riders. This rate is unlikely to yield any net income benefits for other customers. A more appropriate mechanism for allocating surplus power to customers should be developed.

The load retention rate, designed to maintain customers on the system who would otherwise purchase their power from other utilities in Ontario, may be of benefit to other ratepayers if the criteria are rigorously set. But so far, Ontario Hydro's load retention rates have been set in secret and without regulatory review and no examination can be made to determine whether they meet the appropriate criteria.

The Short Term Incremental Power Program (STIP) is designed to use existing surplus capacity by offering discounts in exchange for incremental load guarantees. STIP, in effect, provides the same quality of service as other rates but at different prices, and carries a serious risk of free ridership.

The Guaranteed Rate would provide customers who have high demands the choice to pay, in effect, a 2.4-per-cent increase for 1996 and a 3.8-per-cent increase for 1997 over the normal firm rate for 1995. Although the move toward longer-term contract arrangements responds to customers' needs for certainty, such a rate should be derived from actual projections of costs, and not turn on a gamble on future inflation rates, especially when Ontario Hydro's ability to control future costs is very much in question. As presently designed, the proposed Guaranteed Rate poses a large risk to Ontario Hydro and non-participating customers.

Ontario Hydro proposes to replace the supplementary power rate and replacement power rate with a new Back-up Power Rate to apply to direct customers and municipal utilities, that have their own generation, comprising at least 10 per cent of their load. The principles Ontario Hydro proposes to apply to the Back-up Rate appear to appropriately reflect the costs of making back-up power available. Further study is required of the impacts on municipal utility customers and full implementation for municipal utilities should be deferred.

This Board has also been urged by proponents of the Bruce Energy Centre Industrial Park (BEC) to recommend special rates for participants in BEC. Any such rate would be discriminatory and should not be approved.

6.1 COST ALLOCATION METHODOLOGY

No changes are proposed by Ontario Hydro and none are recommended by the MEA at this time.

6.2 PROPOSED RATES

6.2.1 General

1. Ontario Hydro's objective of rate increases no greater than the rate of inflation should be accepted for 1995 and 1996.

6.2.2 Direct and Municipal Class Rates

1. The average rate increase for municipal utility customers should be set at 1.4 per cent. The planned surplus for the rural class should be eliminated, and the rate increase for the direct class, before consideration of DDS impacts, should be set at 1.5 per cent.

6.2.3 Discount Demand Service

1. The change to the DDS discount as proposed by Ontario Hydro is appropriate.

6.3 RATE RESTRUCTURING INITIATIVE

1. Ontario Hydro should move quickly to develop a menu of flexible, cost-based, non-discriminatory rates offering customers opportunities to lower their electricity costs. Ontario Hydro should present a comprehensive and properly supported analysis in connection with its proposals for experimental and optional rates at HR 23.

6.4 EXPERIMENTAL/OPTIONAL RATES

6.4.1 Real Time Pricing

1. The MEA supports proceeding with the RTP II experiment on the basis that participation be extremely limited and that a complete and comprehensive report be presented for review at HR 23.

6.4.2 Surplus Power Rates

1. Until Ontario Hydro carries out studies to determine how to optimize the benefits from surplus power, such as through a bidding system, the Surplus Power rate should not be extended to more customers. As an interim measure, the markup for the existing experimental Surplus Power rate should be increased substantially above 7 mills per kWh. A "buy through" provision should not be implemented for Surplus Power rates.

6.4.3 Load Retention Rates

1. Load retention rates should not be considered by this Board until Ontario Hydro agrees to make all such rates subject to public, regulatory review.

6.4.4 Short Term Incremental Power Rates

1. Ontario Hydro's proposal for Short Term Incremental Power should be rejected.

6.4.5 GUARANTEED RATES

1. Guaranteed Rates as proposed by Ontario Hydro should be rejected at this time. Ontario Hydro should continue its investigations into appropriate long-term contract rates.

2. If Ontario Hydro proceeds with Guaranteed Rates, this option should also be available for municipal utilities with average demands under 5 MW.

6.4.6 BACK-UP POWER RATES

1. Ontario Hydro's proposal for the derivation of the back-up power rate should be accepted.

2. Ontario Hydro should conduct additional analysis of the impact of the proposed back-up rates on municipal utilities and, pending such further study, should phase in the rate for municipal utilities.

6.5 INCENTIVE ENERGY RATES FOR SUSTAINABLE DEVELOPMENT

1. The request by representatives of South Bruce for incentive rates for the Bruce Energy Centre should be rejected.

EXECUTIVE SUMMARY OF NISHNAWBE-ASKI NATION

Recommendation 1.0: As a key component of Ontario Hydro's and Ontario's discussions regarding fundamental restructuring of Ontario Hydro to improve competitiveness, Ontario and Ontario Hydro be required, in cooperation with NAN, to address the government-to-government relationship between First Nations and Ontario, and how that will influence any fundamental restructuring.

Recommendation 1.1: Hydro should give clear directives to its employees and management to ensure that appropriate sustainable development objectives are carried out. Using performance measures to ensure sustainable development objectives are carried out is to be encouraged, but these performance measures should be reviewed by this Board at the next hearing.

Recommendation 1.2: Hydro should consult directly with NAN to determine what discussions, in what forums and with what resources, the TFSED recommendations should be reviewed, and carry out those discussions within the following year, for the purposes of refining the recommendations relevant to NAN First Nations.

Recommendation 1.3 (a): Early consideration be given by the Environment and Sustainable Development Division of the ES&E Group, in cooperation with NAN, to developing mechanisms to ensure that non-monetizable impacts are not accorded a lesser degree of consideration because they are not monetized.

Recommendation 1.3 (b): Hydro should place more focus now in its Full Cost Accounting (FCA) research efforts on hydroelectric externalities, and do so in cooperation with NAN First Nations.

Recommendation 1.4: The Ontario Government should negotiate the terms of an acceptable government-to-government relationship in regards to the electricity sector as soon as possible, and direct Ontario Hydro to develop a policy or policies of joint stewardship consistent with that relationship. A key issue to be discussed in these negotiations is First Nation control over electricity supply resources.

Recommendation 1.5: Hydro should produce a refinement of its customer satisfaction index to determine the level of customer satisfaction amongst the remote communities it serves.

Recommendation 1.6: Hydro should reconsider its decision rule in relation to past grievances, contained within the July, 1993 Policy for Aboriginal Relationships, in light of the recommendation of the Task Force on Sustainable Energy Development in this matter, to clarify that Hydro's intention is to resolve these grievances without delay.

Recommendation 1.7: Hydro should modify its integrated resource planning (IRP) approach as follows:

(a) to make it consistent with a more holistic ecosystem approach;
(b) to give explicit recognition to the appropriate role of aboriginal and treaty rights and government-to-government relationship between Ontario and First Nations in electricity planning, which would address the requirement of First Nation agreement in relation to construction and operation of new facilities; and
(c) to provide a role in planning for aboriginal peoples' knowledge which is equal to the role accorded to western scientific knowledge.

Recommendation 1.8: Hydro should develop, in consultation with stakeholders and First Nations, a screening process for Integrated Resource Planning of existing facilities that takes into account the environmental effects of existing facilities, including those effects identified by locally affected people.

Recommendation 1.9: In cooperation with NAN, Hydro should review the functions of the Aboriginal and Northern Affairs Branch to determine whether or not aboriginal issues should be addressed within a unit separate from that dealing with northern issues generally.

Recommendation 1.10: Hydro should make a concerted effort to, through new hiring or through training of existing personnel, employ persons who have a demonstrated understanding of and commitment to achieving the Corporation's sustainable energy development goals.

Recommendation 3.1: (a) Ontario Hydro International Inc.'s (OHII) Board of Directors should develop a formal minimum standard of public input consistent with OHII and Ontario Hydro's mission statements, that must be met if OHII is to be permitted to invest in foreign countries, which standard is to be reviewed and approved, with changes as necessary, by Ontario Hydro's Board of Directors.

(b) The Minister should develop a review process, including a role for public input, that any proposed investments by OHII in projects with potentially significant adverse social and physical environmental impacts must go through, before the investment is made, to determine if the investment is consistent with sustainable development criteria.

Recommendation 4A.1: The Minister should require Ontario Hydro to hold an open public debate, with adequate funding for scientific support to allow participation by concerned publics and First Nations, on the issue of potential EMF impacts from exposure to electromagnetic fields from high voltage transmission lines, and appropriate mitigation measures to address this matter.

Recommendation 4B.1: Hydro should specifically examine in the course of developing its integrated facility plan, whether certain hydroelectric facilities ought to be decommissioned in light of, among other things, their environmental impacts. Hydro should also, in developing said plan, consult directly with affected First Nations on the impacts of the hydroelectric facilities in a manner which allows for First Nations concerns to be documented and actions take or responses given recorded, to permit traceability of the results of the consultation.

Recommendation 5.1: The Minister should include in the reference for the next rate hearing a direction to the Board to specifically investigate Ontario Hydro's progress in supporting renewable energy projects, with particular reference to their planning and implementation in First Nation communities which are electrically remote.

Recommendation 5.2: The Minister should, in the next rate hearing, require that specific consideration be given to measures taken to improve the electricity resource situation in remote communities served by Hydro, focusing both on measures taken on the demand and supply sides.

Recommendation 5.3: Hydro should pursue and acquire cost-effective lost-opportunity DSM resources, and, in order to do so, undertake a comprehensive review of its proposed DSM programs, in light of the critique offered in Exhibit 5.2.8, "Assessment of Ontario Hydro's 1995 Demand Management Plan".

Recommendation 5.4: Hydro should not categorically reject the use of incentives, but make judicious use of them to ensure uptake of cost-effective energy efficiency measures. In so doing, Hydro should specifically, in cooperation with NAN and NAN First Nations remote communities, reconsider the use of Hydro incentives to ensure uptake of cost-effective energy efficiency measures in remote communities and other on-grid communities.

Recommendation 6.1: Ontario Hydro should determine whether a plan can be developed for repaying the balance in the direct customer account, and only if that determination is made, should it proceed with the suggested adjustments in the rural and direct classes. The plan should then be filed in the next rate hearing. In the event that Ontario Hydro determines it cannot develop such a plan, it should not proceed with the adjustments in accounts.

Recommendation 6.2: With respect to the various load retention and economic development rates that Hydro is offering as discount rates to its industrial customers, that, despite their experimental nature, in the absence of information about the details of the contracts themselves; effective internal screening mechanisms for these rates; and regulatory supervision, this Board should not endorse these rates as being appropriate.

Recommendation 6.3: That Ontario Hydro conduct a study, the results of which should be reviewed in the review of rate principles, on the proper design and implementation of lifeline rates for member First Nations of Nishnawbe-Aski Nation, and that this study be produced at the next rate hearing.

Recommendation 6.4: Ontario Hydro should, in the course of Hydro's apparent shift towards exploring more market-based rates, explore, in cooperation with NAN, rate programs that would insulate these customers from the adverse impacts of these rates, including lifeline rate programs and special community economic development rate programs, as well as service improvements.

EXECUTIVE SUMMARY OF NORTHWATCH

1. Northwatch is a regional coalition of environmental and citizen organizations and individual members, operating throughout northeastern Ontario. Founded in January of 1988, Northwatch has as a priority issues that are of a regional nature : energy use, generation and conservation; forest conservation and wild areas protection; waste management and water quality issues; mining; and militarization. In addition to acting on these issues as a representative body, Northwatch also provides support to local citizen's groups addressing these and other environmental concerns in their own community.

2. Ontario Hydro has laid out competing, if not conflicting, sets of objectives for the utility's restructuring in the course written and oral evidence in the H.R. 22 proceedings. The objectives and focus of the restructuring have been variously described as those objectives set out in Ontario Hydro's corporate mission; as "driving to fundamentally create a customer-focused organization"; and as "financial performance objectives".

3. Given the mission statement of Ontario Hydro, one would presume that the principles of sustainable development would apply to the organizational restructuring of Ontario Hydro. However, little or no evidence was presented by Ontario Hydro on how restructuring was undertaken to fulfil the sustainable development objectives, or of how the principles of sustainable development directed the restructuring.

4. Ontario Hydro's proposed restructuring fails in two fundamental ways. First, it does not provide an ability for people to participate in determining their own futures through fair and open planning processes, as outlined above. Second, it does not clearly identify the process for major planning decisions, such as a decision to develop a new supply of electricity, for example the construction of a major electric generating facility; nor does it identify the party (within Ontario Hydro) responsible for such decisions.

5. Accountability is limited to within Ontario Hydro, and Ontario Hydro did not, in the course of this review, give cause to believe that accountability is expected to extend to making the organization accountable to the people or government of Ontario as a result of the restructuring.

6. Two primary areas of concern emerge in a review of Ontario Hydro's evidence on the Grid System: an emphasis on increasing secondary sales, and the attendant potential problems; and an absence of any clear identification of how supply-related decisions are to be made, particularly in the case of new supply.

7. Northwatch noted with interest that Ontario Hydro does not consider the North American Free Trade agreement (a federal Act) when making decisions about electricity export, despite NAFTA's ability to lock that supply, on a proportional basis, even in times of domestic need. The non-consideration of NAFTA in decisions relating to export became perplexing upon hearing evidence given by Mr.Rusnov that NAFTA is the prevailing consideration for Ontario Hydro in determining its policy on wheeling.

8. In the course of evidence brought by Ontario Hydro, the utility failed to adequately identify the actual costs associated with nuclear power - Northwatch submits that the costs remain a mystery, hidden not only in the accounting policies of Ontario Hydro, but also in a number of assumptions on which it wrongly bases its accounting practices and conclusions.

9. Ontario Hydro demonstrates, in its presentations on the function, priorities and activities of the Energy Services and Environment Group, a number of inconsistencies, both internal to the discussion of ES&E and in relation to the stated commitment to sustainable development. This is particularly evident in the area of lowered rates to industrial users versus support of co-generated electricity. That Ontario Hydro does not support increased co-generation conflicts with both the corporate mission statement and with several of the Energy Service and Environment Group's objectives.

10. Northwatch does not accept that price "drives cost" is a valid economic principle nor that electricity costs are a main driver in industrial success or in achieving sustainability.

11. Ontario Hydro has failed to demonstrate a sound basis for its application, particularly with respect to restructuring or a freeze on rates until the end of the decade. The rate application is neither certain nor supported by the evidence, and a longer term plan is required for the future. The corporate mission and restructuring of Ontario Hydro, and the basis for setting rates in the future, should be the subject of further review and consideration before a body constituted by the Minister of Environment and Energy, and should inform Ontario Hydro's rate application in subsequent years.

12. It is respectfully submitted that Northwatch has met all of the criteria set out in Procedural Order No.1 in its participation in H.R. 22 and, therefore, is eligible for an award of costs. Particulars with respect to the quantum of the cost award for legal, case management and expert fees, which Northwatch seeks will be submitted to the Board forthwith.

EXECUTIVE SUMMARY OF
ONTARIO COALITION AGAINST POVERTY

The Ontario Coalition Against Poverty (OCAP) has chosen to address only a few of the many issues raised by Ontario Hydro's 1995 Rate Application. Failure to address other issues does not indicate a disinterest on the part of OCAP in those issues, nor is it an indication that OCAP considers other issues less worthy of attention. As a result, OCAP's argument is by no means comprehensive. Keeping this in mind, the following is a summary of OCAP's recommendations and comments:

LOAD FORECAST

In OCAP's view, this Board should recommend that:

> **Hydro's plan of 135 TWh for primary load in 1995 be revised downwards by at least one percent.**

OCAP is concerned that load forecasting models employed by Ontario Hydro exhibit a significant upward bias. This bias arises because Hydro's econometric models are largely based on historical consumption patterns and do not allow for a temporal evolution of behavioural parameters. The results of these econometric models appear to have been largely ignored in preparation of the rate proposal. Instead, Hydro bases its proposal on a zero load growth scenario. This scenario constitutes a reduction in the June 1993 load forecast for 1995, from 140.8 TWh to 135 TWh. However, Hydro's March 1994 load forecast, included in the rate submission as Exhibit 2.1.12, gives an updated outlook for 1995, based on econometric models, of 135.5 TWh - which roughly agrees with that of the zero load growth scenario. The econometric methodology used to produce the March 1994 forecast has not changed. It is therefore likely that an upward bias is also present in the March 1994 forecast.

Since the zero load growth scenario now seems to agree with Hydro's systemically optimistic econometric models, there is a strong likelihood that Hydro's rate proposal is based on an overly optimistic outlook for load growth.

CES ENERGY PLAN (GRID)

In the view of OCAP, this Board should recommend that:

> **Reserve margins used to perform the Capacity Surplus Review, namely 18 percent for one-year-ahead, are more appropriate than the 20 percent margins usually used for this period. Hydro must endeavour to manage actual margins closer to targets.**

OCAP's concern with generating and transmission reliability is twofold. Firstly, surplus reliability is costly. To the extent that Hydro adopts and maintains a higher risk profile, this problem is being addressed. Secondly, the benefits of surplus reliability differ greatly among and within consumer classes. OCAP does not believe that this issue has been adequately addressed. While OCAP does not have a solution to this problem at this time, other than support for Hydro's reduction in reserve margins, we submit that the cross-subsidization of customers requiring high reliability by those requiring less reliability in the system as a whole should be recognized in the rate-setting process.

HEAVY WATER EXPORTS (NUCLEAR)

In the view of OCAP, this Board should recommend that:

> **Hydro's decision to write off the book value of the Bruce Heavy Water Plant to the Future Use Inventory is inappropriate. Exports of heavy water should include a provision to recover depreciation charges on the heavy water plant.**
>
> **Electricity sales to the Bruce Heavy Water Plant should be based on the rate structure the plant would face as a Direct Customer.**
>
> **Exports of heavy water should include a premium to recover fair market charges for property rentals at the Bruce site.**
>
> **Exports of heavy water should include a provision for the recovery of decommissioning costs.**

Based on the record of this proceeding, OCAP submits that ratepayers in the province are potentially subsidizing heavy water export sales. The decision to write off the remaining book value of the plant transfers responsibility for depreciation charges from export customers to Ontario ratepayers. In addition, OCAP is concerned that several financial transactions between Hydro and the heavy water subsiduary do not reflect fair market value. Prices paid by the heavy water plant for electricity, property rentals and decommissioning are not appropriately charged to export sales.

FOSSIL INVENTORIES

In the view of OCAP, this Board should recommend that:

> **Hydro should take steps towards reducing residual oil inventories carried at the Lennox Plant. At a minimum, Hydro should endeavour to achieve resale levels which are sufficient to cover inventory carrying charges.**

OCAP is concerned about Hydro's apparent reluctance to adopt a "sell at a loss" policy with regard to residual oil inventories, at a time when it appears that this will be Hydro's only option. Failing corporate approval for write-downs, these losses must be incurred by the business unit. A policy of residual fuel oil resales, in quantities to offset

inventory carrying charges, is a minimal step towards inventory management. For this reason OCAP recommends that Ontario Hydro endeavor to sell a minimum of ten percent of residual fuel oil inventories per year. This would increase 1995 net income by around $8.5 million. To the extent that reviews of inventory levels deem that further reductions are warranted, OCAP advocates a more active resale strategy.

ENERGY MANAGEMENT PROGRAMS

OCAP submits that this Board should recommend that:

> **Ontario Hydro's Demand Management Program include initiatives specifically designed to reach low income households.**

DSM programs play an important role in reducing electricity costs for consumers. Given that neither Ontario Hydro nor any municipal utility offers special discount rates to low income customers, the importance of DSM programs to the low income sector of the Ontario population is particularly pronounced, as Hydro's own report on Lifeline Electricity Rates concludes. While OCAP is encouraged by Hydro's stated commitment to designing a cost-effective energy conservation program aimed at capturing lost opportunities in the low income market, such commitment must be translated into action if it is to be of any use.

COST ALLOCATION

In OCAP's submission, this Board should recommend that:

> **Ontario Hydro's plan to recover $10 million from rural customers to offset restructuring costs be rejected.**
>
> **Ontario Hydro should endeavour to develop an alternative to the surplus/deficit mechanism for purposes of spreading rate impacts among customer classes, if Hydro deems that such actions will be required in future periods.**
>
> **The $35.5 million rural offset to stabilize direct class rates should be accumulated in the Rural Class Equity Account.**

Ontario Hydro proposes that a $10 million surcharge be applied to 1995 rates to reduce balances in the Rural Distribution Function RSRC. OCAP contends that these balances are almost entirely due to restructuring - an impact that has also affected the equity positions of the municipal utility and direct industrial customer classes. OCAP maintains that all classes should bear equal responsibility for these charges. It is therefore inappropriate to apply this charge to the rural class alone.

Hydro proposes to moderate industrial class rates by accumulating a surplus in rural revenues. OCAP accepts that this may be appropriate at this time. OCAP is concerned, however, that the method used to perform this transfer is inappropriate. Moreover, the accounting treatment proposed for this transfer is inconsistent with past practice.

REAL TIME PRICING EXPERIMENTS

In the view of OCAP, this Board should recommend that:

> **The proposed Real Time Pricing Experiment II be deferred beyond the 1995 rate year pending further analysis of Real Time Pricing Experiment I.**
>
> **Revenue shortfalls associated with Real Time Pricing experiments during 1995 be accrued, with interest, for recovery from future initiatives.**

RTP revenue shortfalls are accumulated as a common cost in the sundry function and billed out to all of Hydro's customers, (Tr. 4586). Hence, Hydro's municipal utility, rural retail and non-RTP direct industrial customers are subsidizing revenue losses from the RTP customer group. In contrast, revenue shortfalls generated by non-RTP directs or the rural retail class are accrued and repaid, with interest, through the surplus/deficit allocation mechanism. While it is not desirable to recover RTP I shortfalls from RTP II participants, since this group is not responsible for this shortfall, OCAP suggests it would be more consistent if these losses were accrued and recovered from future rates in the event that RTP rates become more broadly applied. At this time, it seems appropropriate therefore that Hydro commit to an accrual policy for RTP deficits rather than recovery through 1995 rates.

RATE RESTRUCTURING INITIATIVES - APPROPRIATENESS OF GOALS

OCAP is concerned that Hydro's rate-setting goals reflect a bias in favour of large industrial customers, to the detriment of residential subscribers, in particular lower income Ontario electricity consumers.

OCAP questions both the necessity and the propriety of rates aimed solely at customer retention, especially before the impact of those rates has been adequately analysed. OCAP recognizes that customer retention can, if pursued only in those cases where it is clearly necessary, benefit all customers of Hydro in the long run. It is essential, in OCAP's view, that the goal of customer retention, if it is retained, be pursued extremely cautiously, with full regard to other goals, including equity as between customer classes.

OCAP opposes the inclusion of economic development as an objective for rate-making, when other socio-economic objectives such as the alleviation of poverty, are ignored.

EXECUTIVE SUMMARY OF ONTARIO CHAMBER OF COMMERCE

I. The Ontario Chamber of Commerce ("OCC") final argument focuses entirely on the first issue on the list of issues provided by the Ontario Energy Board (the "Board" or the "OEB"), Restructuring, and is limited to items A (The Objectives) and B (The Principles).

II. Starting with what is wrong with Ontario Hydro ("Hydro") now, as identified by Hydro's own Task Force on change, OCC observes that the Task Force's diagnosis really comes down to the fact that Hydro is a politicized *de facto* monopoly. Hydro's present impetus for change arises from higher prices than its would-be competitors, as electricity monopolies start to become competitive in both the U.S. (which is at least two years ahead of Ontario in restructuring) and Canada.

III. Much of Hydro's proposed reorganization is already done, making the timing of this hearing of questionable value, and reinforcing the perception that this hearing was requested at least in part for the imprimatur of legitimacy it would provide. There is no point now in looking at alternatives to a *fait accompli*. Yet we must judge the reorganization by some criteria; it must be appropriate or inappropriate in comparison to something. The OCC's criteria are: consistency with a proper mission statement, and with the applicable principles of law and public policy.

IV. Hydro's new mission statement is inappropriate for Hydro for two reasons: success in achieving it may be in spite of rather than because of Hydro's efforts, and it continues to equate the provincial self-interest with Hydro's, when the two are obviously diverging. A new, more humble, but more relevant mission statement is proposed.

V. Hydro has no legal monopoly. Its treatment of NUGs through refusal to wheel within Canada (rather than cross-border) is contrary to the public policy enshrined by the Parliament of Canada in the *Competition Act*. Hydro has also attempted to intimidate the customers of NUGs - municipalities - through a legally invalid so-called "agreement" with the Ministry and the Municipal Electrical Association ("MEA") to charge an *ultra vives* notional "exit fee" to any municipality which has the temerity to want to exercise its legal right and duty to buy power from the lowest cost supplier. This "agreement", like all of Hydro's efforts to avoid the greater efficiency that results when we replace Soviet-style central planning with competition, is inconsistent with Hydro's new mission statement and its professed objective of becoming more customer-focussed and competitive.

VI. Hydro's reorganization is largely cosmetic and does too little, too late. While everyone can argue about internal transfer prices between groups and units, this will do nothing to make price determine cost because it places no effective, external control on costs. That can only be done by real markets, and real competition, as in the telephone industry or natural gas. Instead, what Hydro proposes is an isolated, closed, internal system - taking money out of one pocket and putting it into another, in the same pair of trousers.

VII. With real competition there are winners and losers. Hydro's corporate culture is still one of risk aversion, expressed as the avoidance of any meaningful risk of competition, even if this results in excessive electricity prices. The Province pays a high price for Hydro's anti-competitive corporate culture: lost jobs and lost investment.

VIII. Hydro pays lip service to wanting to be more competitive, but only through an organizational chart change, not through what most other businesses in Ontario face. So fearful is Hydro of competition, and so thoroughly has Hydro captured its political masters that the Board's mandate for this hearing excluded any major structural change to the electricity sector. This frustratingly narrow mandate is a reflection of the fact that this restructuring is - at least for now - largely a Hydro public relations exercise in overselling some modest organization chart tinkering. The OCC submission considered the type of change Hydro needs: the acceptance of real competition on a level playing field.

IX. Hydro says it is willing and able to compete, once certain disadvantages have been levelled. It fails to note its enormous competitive advantages: its huge size, with economies of scope and scale; its exemption from income tax; the provincial debt guarantee and its own tremendous borrowing capacity; and, finally, the political support of whoever forms the government. Hydro's alleged competitive disadvantages are rather weak excuses for preserving, for a few more years, the quiet life of the monopolist. The "handcuffs" of public power (as Mr. Strong called them) are more like diamond bracelets provided by the customer/taxpayer. The supposedly unlevel playing field in environmental assessment turns out, on closer scrutiny, to be greatly exaggerated. The "stranded assets" issue is also shown to be a misrepresentation, as we are paying for those stranded assets now, in higher than market rates. As well, until Hydro faces real competition, its investments today will be its stranded assets tomorrow.

X. The OCC urges the Board to recognize these realities in its Report, and to make a strong recommendation that market reality come to Ontario's electricity industry now, not when Hydro forecasts that supply and demand are in balance.

EXECUTIVE SUMMARY OF ONTARIO NATURAL GAS ASSOCIATION

ONGA represents a broad spectrum of interests in the natural gas industry.

Ontario Hydro's rate proposals could be discriminatory and confer an unnatural advantage over strictly regulated natural gas rates. This will detract from Hydro's stated goal of maximizing energy efficiency in the province, impair economic efficiency and competitiveness, and retard progress toward sustainable development.

Electricity and natural gas rates must be regulated on a comparable basis.

The Board should recommend an early public review of the regulation of electricity pricing in the province of Ontario, including the rates of the municipal utilities.

EXECUTIVE SUMMARY OF
ONTARIO HOSPITAL ASSOCIATION

INTRODUCTION

The Ontario Hospital Association (OHA) is pleased to have participated in this Ontario Energy Board (the OEB or the Board) proceeding, to Review the 1995 Power Rates as proposed by Ontario Hydro (Hydro), Board file number HR 22. It is hoped that this Argument will provide the Board with the perspective of OHA members who, although not direct customers of Hydro, are directly affected by any rate changes implemented by Hydro.

The OHA would point out that it filed late intervention after a review of both the list of intervenors and information obtained through the technical conference and the issues settlement conference. Based on the intervenors list it was decided that the OHA members were sufficiently different from the interests of others that a separate intervention was warranted. It was also decided that there were several issues in which the OHA had a specific interest and where it's input could contribute to the Board's better understanding of those issues.

The OHA considers that the comments of the Presiding Member on the opening day are important. He noted the observation of the Board in it's H.R. 21 Report, that intervenors had lost confidence in the ability of Hydro to contain costs and sell power at reasonable rates. He said that "... a crucial test in these proceedings may well be the Board's ability to judge whether intervenors are prepared in their review of the present evidence to change that observation...".

The OHA would offer it's opinion that although Hydro has gone some way to regaining the confidence of both its direct and indirect customers, many of whom were represented at the hearing, it would be premature to change the observation of the Board in H.R. 21. It took a number of years for Hydro to cause so many to lose faith and it will take several years for that faith to be restored.

As requested by the Board, this Argument will be follow the "H.R. 22 Organization of Final Argument" which was prepared and distributed by Board Staff. Only those Issues on which the OHA believes it has a particular perspective or points that should be made are addressed in this Argument. The OHA is not silent on other issues because it is satisfied with the Hydro proposals, however, rather that it is satisfied that other participants have shown sufficient interest that the issues will be adequately addressed in their arguments. The OHA sees little value in undue duplication.

1. RESTRUCTURING

A. The Objectives of the Restructuring

1. Corporate Mission

In 1993 Hydro adopted a Corporate Mission which is:

> "to help Ontario become the most energy efficient and competitive economy in the world, and a leading example of sustainable development."

This appears to be a mission which Hydro can not achieve without the support of other segments of the energy industry in Ontario. It is over-ambitious for Hydro which has been almost out of control and still has massive debt, an over-supply of power generation capacity and reduced sales.

This Mission is cause for concern in that it can be used to deflect scrutiny away from the internal problems of Hydro and Hydro personnel may use it to overlook or ignore the internal problems of Hydro while devoting time and energy to achieving the "Corporate Mission".

The OHA believes that this Mission may be inappropriate for Hydro at this time, and that it should not seek to become the energy-efficiency over-seer for the Province. Dr. Kupcis does comment in passing at Tr 39, L 4, that "Well, first, of course you have got to do it to yourself, but it is clearly with the whole province in mind, that is right." However, as long as that is the Mission some time will be devoted to it.

The OHA believes that Hydro Executive and Management should be the resolution of Hydro's internal operating and financial problems while meeting the requirements of the electricity consumers of Ontario. The internal Corporate Objective should be "to become the most efficient power generation and delivery corporation in the world." The achievement of this Objective by Hydro would move Ontario a long way towards becoming "...the most energy efficient and competitive economy in the world".

It can be expected that all segments of the energy industry in Ontario can be persuaded to embrace a similar mission as that adopted by Hydro in 1993, without the necessity for Hydro to devote valuable Management time on this endeavour. If any segment should not accept such a mission then the efforts of Hydro would probably be wasted in any event.

Recommendation

That the Board recommend that the Hydro Board of Directors prioritize the achievement of the Corporate Mission and direct that Hydro Executive and Management concentrate their efforts solely to the resolution of the internal operating and financial problems so that Hydro will become "The most efficient power generation and delivery corporation in the world." Only after the Board of Directors have been satisfied that Hydro has achieved these goals should efforts be permitted to spend any effort on the more esoteric "Corporate Mission".

B. Organizational Restructuring

2. The Process of Restructuring

The process of restructuring has been described by Dr. Kupcis at Tr 19, L 27, as "...a transformation or a reinvention of the Corporation...", and indeed this has been the result of the restructuring. Instead of the Rate Review focusing on a single Hydro Team, with various operating, accounting and financial

departments, it has been faced with five teams, each with several internal departments, but with an overall personnel count considerably lower than the single team last reviewed in 1992.

The basic facts that have been drawn from the record as far as the Restructuring of Hydro have been; that it resulted from general dissatisfaction among customers as to Hydro's performance and that the intent was a customer-focused organization with competitiveness as its goal, business units as the structure and accountability as the motivator, (Tr 22, L 5). However, as many Hydro witnesses indicated, the process is incomplete and that further changes can be expected.

The considerable consultation between Hydro and both the Association of Major Power Consumers of Ontario (AMPCO) and the Municipal Electric Association (MEA) was noted. The OHA is concerned that Hydro appears to consider that these and other consultations with un-named customers, are an adequate basis for such changes. It must be pointed out that it was not just those who purchase power directly from Hydro who were dissatisfied with Hydro. Virtually all consumers of electricity who had been faced with the rate increases that had occurred year after year were dissatisfied with Hydro.
In addition, the competitiveness of all of those that use power generated by Hydro should be considered, not just those that purchase power directly from Hydro. The combined OHA membership would be equivalent to a large direct consumer and it is questionable whether the Municipal Electric Utilities (MEUs) could adequately present the OHA view in discussions with Hydro.

It is recognized that the MEUs purchase power from Hydro for distribution throughout their local area, also that it is Hydro that exercises regulatory control over these MEUs with respect to rates. As such, Hydro should consider the impact of restructuring, and all other actions, on the consumers that are served through an MEU as well as those that it supplies directly.

Further changes to the current Restructuring can be expected both in the near-term and for a number of years. For the longer-term Ms. Clitheroe referred to "Hydro 21", which is further work being undertaken to determine what sort of a utility can best meet Ontario's needs in the twenty-first century.

Recommendation

In view of the fact that the Restructuring is interim and the process is ongoing, it is recommended that Hydro should expand its consultation process to include consumer groups such as the OHA, in order to ensure proposals are consistent with their needs. This should also enhance the ability of Hydro to fulfil its role as a regulator.

The Board should also recommend that Hydro ensure that all of the electricity consumers in Ontario receive information as to the changes that are and will be taking place in Hydro. This can be accomplished through the MEUs very readily, and it can avoid the information gaps that have been occurring to date.

5. Staff Reductions

The evidence clearly indicates that Hydro has made considerable strides with respect to reducing staff levels, achieving some 18% reduction in staff and associated costs. The problem that the Board and the intervenors face is to assess whether or not the staff levels are now as low as required or whether there are still areas where further reductions can be achieved, without any loss of efficiency.

The information provided by Hydro with respect to staff levels was not in sufficient detail to allow a thorough evaluation of the staff reductions. Based on the level of information it was concluded that there was insufficient information for an adequate assessment.

In response to a Board Staff interrogatory (2.4.72) Hydro provided the staffing levels for 1994 and 1995 and indicated that "No specific benchmarking for the corporate function had been performed against other organizations."

The OHA suggest that the Board has no basis for reaching any conclusion with respect to the proposed staffing levels. The establishment of business units that are independently accountable, creates more opportunities for duplication of services. Without specific benchmarking or adequate information the OHA suggested that no meaningful assessment could be made.

Recommendation

It is recommended that Hydro be advised by the Board that it will be requesting more detailed information from Hydro as to the proposed staff levels in the next Rate Review, with the objective of ensuring that issues such as benchmarking, duplication and functions can be explored more fully. The cost implications are dealt with under IV. A.5. below.

6. Will it Achieve the Restructuring Objectives

Since the objectives of the restructuring are very broad it would be impossible at this time to find any benchmark or measure to determine that the objectives have or have not been achieved. Since the restructuring is incomplete, it would be inappropriate to attempt to make such a determination at this time.

The OHA would argue that the objectives have clearly been characterized by most intervenors as being a move in the right direction, also that the restructuring is consistent with those objectives. However, demonstrated improvements in operating efficiency and in Hydro's financial position will really be the true test of whether or not the objectives have been achieved. Needless to say, it will be some time before operating and financial changes can be fully assessed.

Recommendation

The OHA would submit that based on the foregoing the Board should conclude that it is too early to reach any conclusion with respect to whether or not the Restructuring to date will achieve the restructuring objectives. Hydro should be encouraged to continue to strive towards those objectives and to monitor the results to ensure that; either they are achieved or that changes are made that will result in the objectives being achieved.

7. Implications of Restructuring on Regulatory Process.

It appears that the Restructuring will have little or no impact on the current regulatory process. However, a number of factors are involved and the OHA considered that there is a need for an annual rate hearing.

Recommendation

The OHA recommend that the Board establish a process to monitor developments in Hydro that could have implications for the current regulatory process. That in view of the Restructuring to date and the lack of adequate evidence as to its success or otherwise, the Board should recommend to the Minister of Environment and Energy that Hydro be required to appear before the Board for a Rate Review each year for the next five years. This will permit the Board to provide to the Minister an annual report as to the progress of the Restructuring and the improvements that have resulted.

II Corporate Overview

B Policy on Transfer Pricing

The OHA is supportive of Ontario Hydro changing the focus of its operations to reflect a competitive situation. The introduction of Transfer Pricing is a good example of this positive change in the organization. The OHA is, however, concerned with the structure of both the 1994 and 1995 proposed

Transfer Pricing since the Ontario Hydro Nuclear (OHN) will receive revenues on the basis of this program but without any actual electricity production.

The OHA observes that such payments are made to the Fossil and the OHN Units only. This appears to be discriminatory against the other "generation units" of Hydro. Exhibit 4.1.5 page 14, Fig. F.1, shows that the Balancing Payments forecast to be made to OHN represent some two thirds (2/3) of the OHN revenues. As pointed out at Tr 6101, L 1 these amounts for Balancing Payments will be paid to OHN regardless of the production of 1 Kw.h. These payments "just makes them whole."

The OHA argued that if the OHN revenues were reduced by this two thirds, or $3,232.6 millions, (Table 4-15, Exhibit 4.1.0) the Operating Statement would now show a resultant loss of $2,791.6 millions rather that a Net Profit of $440 millions.

The OHA considers that the data contained in the OHN Operating Statement, Exhibit 4.1.0, Table 4-15, is misleading as a result of these transfer payments and finds this aspect of the Transfer Pricing Agreement unacceptable.

Recommendation

The OHA recommends that the Transfer Pricing Agreement be changed to remove the Balancing Payment Revenue. OHA further recommends that the Transfer Pricing Agreement be examined by a wider group of stakeholders with a view of finding a better method of Revenue recognition at the Business Unit.

IV ELECTRICITY GROUP

A Grid System Business Unit

2. Transfer Pricing - mechanics and costing

The Grid Business Unit (GBU) in partnership with other Business Units, develops and implements the transfer pricing mechanism and the management of contracts for the supply and delivery of capacity, energy, and ancillary products as set out in Exhibit 4.1.3.

At the second Technical Conference, April 18, 1994 it was explained that one of the aims of the Transfer Pricing mechanism was to distribute the revenue of the Electricity Group. However, it was learned that the transfer pricing in 1995 will differ substantially from that of 1994.

OHA characterizes Transfer Pricing as a continuum and suggest the Board can make no detailed recommendations on the 1995 Transfer Pricing mechanics and costing since there is insufficient evidence.

3. Business Plan 1994-1996

Hydro has made many references in written evidence and in testimony to the consultation process between the business units and with the consumers of electricity in Ontario. Such consultations have certainly taken place between AMPCO and Hydro so it is interesting to note that AMPCO considered it necessary to call witnesses to speak to the developments in the U.S.A. Mr. Czarnecki perceives the Hydro situation as being similar to that which existed in the U.S.A. over the last 10 years. He spoke of electricity becoming more of a commodity in the U.S.A., with access to transmission systems becoming more open thus creating more competitive environments where no competition had existed before (Tr 5069, L 3).

The OHA believes that Hydro is now moving in the right direction, but that it has a long way to go. The consultation process should be continued and expanded, with the objective of improvements in the overall efficiency of the system. This will require that Hydro allow much more flexibility with respect even to

third party access to the transmission system and with more options being available to customers and groups of customers.

Recommendation

That the Board should include in its report a recommendation that Hydro should undertake specific studies as to the problems with third party access to the transmission system and how they can be overcome. The terms of reference for the study should be developed through consultation with those consumers and consumer groups that would be affected. The study should also include an objective evaluation of the experience in the U.S.A. and other areas where third party access is allowed. This recommendation may be incorporated into the OHA recommendation under V.B. below.

5. Costs - For Each Business Unit

Based on the lack of information on Staff Reductions the proposed staff levels for 1994 and 1995 have not been properly supported before the Board. The OHA submits, therefore, that the OM&A included for the Grid System Business Unit, and indeed for all of the business units, has not been adequately supported by Hydro. As a result, the OM&A included for each of the business units should be reduced to ensure that the staff levels and other costs remain as low as possible in future years.

Recommendation

That a recommendation be included in the Board's report that OM&A costs included by Hydro in its proposal should be reduced further for each of the business units to restrict staff levels to that which can be proven as absolutely necessary. The reduction should be 3% for each of the business units.

D. Fossil Business Unit

3. Environmental Impact - air emissions

Ontario Hydro plans for the 1995 rate year electricity production of between 7-4 and 17.0 TW.h as set out on the Table in Exhibit 4.1.7, page 8. The Ontario Hydro Fossil (OHF) "Business Vision" shown on page 3 of Exhibit 4.1.7 claims worthwhile direction but is noticeably devoid of references to Emissions.

In Mr. Strong's testimony, OHA notes that:

- the chairman's references to containing emissions, of which Ontario Hydro is the single largest source of CO_2 (Tr 425, L 5)

- the possibility of using an investment in Costa Rica where sustainable development is achieved through an "offset program." (Tr 425, L 14)

OHA notes that no mention was made of the co-operative program that Ontario Hydro is participating with other local utilities to find ways to reduce CO (2) emissions in the Toronto area. It appears that Hydro is favouring the exotic Costa Rica project over the more mundane project at home.

Recommendation

OHA considers that the Board should direct Ontario Hydro to fully publish their "emissions quantities produced" and the respective targets being addressed by all of their generation plants. The societal issue of meeting emissions targets is clearly as important as fuel efficiency and must be kept in public view at all times.

5. Costs

The Fossil Business Unit (OHF) sets out its respective costs in Exhibit 4.1.7, page 3 schedule entitled Business Plan Operating Statement for a total of $962 millions. This includes $214 millions of OM&A.

Board Technical Staff Counsel in discussion with the principals of the OHF learned that the full OM & A amounts for 1995 are as yet undecided. (see Tr 3638, L 5 and onwards)

Recommendation

The OHA recommends that since there is uncertainty, this Board should set new OM&A targets for the OHF in accordance with the OHA recommendation in IV. A.5 above.

V. ENERGY SERVICES AND ENVIRONMENT GROUP

A. Energy Services and Planning Group

At Tr 4925, L 26, Mr. Harper indicated that Hydro does not consider that the customers of the MEUs are Hydro's customers. This is surprising in that the much of the electricity that Hydro produces ultimately finds its way to these consumers. It is also surprising in that Mr. Fox at Tr 4927, L 19, indicated that he would make sure that the OHA were invited to future consumer forums. The OHA considers that it is important that Hydro, and in particular this Group, consider all consumers in determining its strategy, in fact, if it does not, then it will have difficulty in achieving its Mission.

In any event, the OHA considers that it is a measure of the success of this group that the consultation process with customers is still continuing. Although the process that has been followed to date appears to have been somewhat limited, it is understood that the intention is to expand such consultations. The highest priority should be given by Hydro to enhancing customer driven efficiency.

Recommendation

That the Board includes a recommend action that the consultation process currently being followed by Energy Services be expanded to include a greater number of power consumers, not just direct customers, and that user driven efficiency be given the highest priority. This approach is consistent with the Hydro Mission and with the OHA suggestion for a Hydro Corporate Mission directed to solving internal problems.

B. NUGs Strategy, Programs

The NUG strategy and programs of Hydro are clearly in disarray, which is creating difficulties for Hydro, the NUG industry and those consumers who could benefit from such technology. Evidence of the problems in this sector can be found in Tr. Undertaking 1.3.9, which is the endorsement of the Amended Report of the Task Force on Municipal Electric Utilities Purchasing/Developing Non-Utility Generation. The Amended Report essentially establishes that MEUs shall not generate or purchase power from sources other than Hydro except under specific terms and conditions. The terms and conditions include a process by which an MEU can establish that it can either build a NUG or can purchase power from a source other than Hydro.

The problems between the MEUs and Hydro, with respect to Hydro's claim of an exclusive right to supply the MEUs has been well publicized and the Amended Report can be seen as resolving that issue. The fact that the endorsement was signed by the Chairman of Hydro, the Chairman and President of the MEA, as well as the Minister of Environment and Energy, is surprising. Obviously the intent was to indicate that this was accepted as Ontario Government Policy.

It is submitted that if Hydro does indeed intend to achieve it's Mission which has been referred to earlier herein, then not only will it be necessary for Hydro to relax it's monopoly over power generation in Ontario, but also that its total control over the power transmission system must also be relaxed. The initial step in this process could be the encouragement of load displacement NUGs (LD-NUGs), since the environmental and societal benefits associated with such units can be realized now with little or no detrimental impact on Hydro.

Obviously, from comments of both Messrs Strong and Vyrostko, the risk of "stranded assets" is of more significance than the objective of customer driven efficiency and the improved competitiveness of its consumers, or the environmental and societal benefits that could be achieved through reducing hospital operating costs.

One common requirement for LD-NUGs is for back-up power in the event of failure of the NUG. Backup power can be supplied from several sources, including a the local MEU and other LD-NUGs. Supply from the local MEU is dealt with below under **VI. C. 6,** Back-up Power Rates.

In some cases it would be possible for one or more consumers who can each benefit from LD-NUGs, to back-stop each other in the event of equipment failure. In order to accomplish this they would require access to the MEU or Hydro's transmission system. Currently there are some MEU's that will permit very limited access but Hydro will not permit any additional access.

The answer to interrogatory 1.3.9, the endorsement of the agreement between the MEA and Hydro, indicates at section 6. that prior to March 1, 1994, the OH (NUG Division) will have a new policy in place on wheeling of power. However, at Tr 6279, L 4, Mr. Fox noted that the wheeling policy was put on hold and we rolled the wheeling question into a study on open access which is on-going at this point in time. No date was given for the completion of the open access study and there is no indication of the scope of that study.

The concern over "stranded assets" has been faced by most industries at one time or another, as changes in competition cause demand for a product to change. In an open competitive market it is the market forces that determine the market share of the individual players. That Hydro is using its monopoly position to control the competition, is not in the best interests of the consumers in either the short-run and in the long-run it is not in the best interests of the Province.

<u>Recommendation</u>

The OHA considers that the Board should recommend that:

- Hydro recognize that there are environmental and societal benefits available through the use of LD-NUGs and that it should actively encourage such installations,
- the concerns with respect to stranded assets should not be allowed to over-ride the above benefits,
- Hydro should ensure that the policy implemented for LD-NUGs is available to all consumers, not just direct Hydro customers,
- Hydro commit to open access so that the study on open access will be to determine how it will be achieved, not if it can be achieved,
- the open access study be completed as soon as possible, and that its preparation should include a consultation process extended to groups such as the OHA, and
- Hydro should be directed to give priority to the interests of the power consumers of Ontario over the retention of its monopoly position.

VI Rates

B. Proposed Rates

Ontario Hydro proposal for 1995 Rates includes a different Rate increase for the 3 main customer groups, with an average of 1.4%, (Exhibit 2.1.0, item 1, page 1.) The Customer Group Rate increase for the Municipal Utilities is greater than for Ontario Hydro's Direct Customers where the average rate increase will be between 0 % and 0.4%. (Exhibit 6.1.0, item 36, page 69)

OHA recognizes that the well organized industrial group, AMPCO representing many of these direct customers, has had numerous meetings with Ontario Hydro over the last 9 months. It is apparent to the OHA that this has been productive since these customers will receive the lower rate increase than the average of 1.4%.

The OHA submits that now is not the time to favour one customer group over another.

Recommendation

OHA recommends that this Board must find a reasonable increase in the "Revenue Requirement" as it does in other hearings over which it presides. OHA submits that the increase or decrease, whichever is appropriate, should be applied equally over all customer classes.

C. Experimental/Optional Rates

6. Back-Up Power Rates

Back-up Power has been introduced in HR 22 as part of Hydro's Rate Restructuring and when other rates are being restructured, ie. Replacement Power and Supplementary Power.

At Tr 4947, L 13, Mr. Harper was asked by Mr Alati if the new experimental or discounted rates, such as the back-up power rate or the surplus power rate would be available to OHA members. The response was that he expected MEUs "...would take advantage of parts of this proposal to facilitate their offering of backup to customer such as hospitals,...". The OHA is concerned that this approach will result in a significant variation in the backup rates that will be offered across the province. In it's role as regulator of the MEU rates it would appear reasonable for Hydro to establish a backup power rate that it would support and that would be offered directly to all NUGs in Ontario.

Clearly, Hydro has not been able to consider all customers or customer groups in its rate redesign. OHA considers that Hydro should include the views of all important customer groups so that at this time the Experimental/Optional rates, particularity the Back-up Power Rates ought to be considered as interim in nature.

The OHA characterizes the Ontario Hydro rate restructuring at this point as an exercise that may have some benefits for a few customers. Much more work has yet to be completed in all of the Experimental/Optional Rates to produce rates which will be acceptable to all but a few customers.

Recommendation

Since the Experimental/Optional Rates for 1995 appear to be questionable, the OHA recommends that, if implemented, Hydro should be required to review the results next year and if necessary readjust each customers invoices.

D. Rate Restructuring Initiative

OHA considers that much has been said in the rates portion of its argument regarding the appropriateness of the Ontario Hydro Rate Restructuring in HR 22.

OHA goes on record that the Ontario Hydro Rate Restructuring is at best, part of the continuum of the process begun for HR 22.

Recommendation

OHA recommends that this Board direct Ontario Hydro to begin a consultative process with all major customer groups as represented by the parties to this proceeding. This consultative process in an "industry setting" can do much to improve the environment of future hearings before this Board.

COSTS

In preparing this Argument with respect to HR22 the OHA has followed the instructions contained in the June 30, 1994 letter from Ms. A. Stein to all intervenors. Only the issues that were identified as being of concern to the OHA are addressed in this Argument. The failure to address other issues should not be considered as agreement on the part of the OHA with the position taken by Ontario Hydro.

The OHA requests, therefore, for the following reasons, that the Board recommend that Hydro pay 100% of the costs incurred by the OHA in participating in these proceedings.

The OHA represents a significant number of electricity consumers who, although they are not direct customers of Hydro, consume significant amounts of electricity produced by Hydro and are, therefore, directly affected by Hydro's rates. As such OHA has a very clear and ascertainable interest with respect to a number of the issues addressed in this Hearing.

In deciding the costs that should be paid by Hydro, the OHA set out many additional factors that are relevant to such a decision.

EXECUTIVE SUMMARY OF
THE ONTARIO NATIVE ALLIANCE

Part I EXECUTIVE SUMMARY

Part II RESTRUCTURING

A. OBJECTIVES OF THE RESTRUCTURING

1. THE CORPORATE MISSION

The O.N.A. is pleased that Hydro has embraced as part of its corporate mission, the concept of sustainable development. Despite this, there is grave concern on the part of O.N.A.'s constituency that the commitment to a zero rate increase and the severe financial constraints Hydro now faces may make any attempt at a real and lasting sustainable development program unachievable. In light of this, the O.N.A. submits that Hydro should re-evaluate its corporate mission and determine whether the long-term objective of sustainable development should not carry more weight than Hydro's commitment to a zero rate increase.

2. THE TASK FORCE PROCESS

Hydro's commitment to a zero rate increase could effectively deny it the opportunity to achieve its objective of sustainable energy development. What is needed a solution, not an impediment to a solution. A comparison of what can be done in terms of financial viability should be made with what should be done in terms of sustainable development can truly be made. Hydro should be required by the Board to undergo a re-evaluation of exactly what programs and actions would be necessary to achieve a true state of sustainable energy development.

3. CORPORATE STRATEGY

Aboriginal peoples have a great deal to offer in to the strategy on sustainable energy development and their input should be sought, both to further develop initiatives and to assist with a vigourous educational program. The Board should direct Hydro to undertake a study to determine what programs could be developed in this regard, and to determine their effectiveness in dealing with Aboriginal issues, for peoples both on and off reserve.

Furthermore, stakeholder participant funding should not be limited to those groups which Hydro wants to involve. It should extend to all those groups who are affected by the particular project or proposal, whether on or off-reserve.

Finally, the Ontario Hydro Policy for Aboriginal Relationships, approved for interim use pending consultation with Aboriginal community, May 20, 1993 must be addressed with a view to finalizing the policy.

B. ORGANIZATIONAL RESTRUCTURING

The O.N.A. has great reservations about the restructuring objectives. The objective of business unit accountability and viability suggests that of paramount importance is the profitable operation of the unit. The requirement for full balance sheet and profit and loss accountabilities and specific return on assets is a policy which will inevitably hinder relations with Aboriginal peoples unless some safeguards are put in, such as relief to a particular business unit from the corporate level.

Part III CORPORATE OVERVIEW

A. CORPORATE BUSINESS PLAN

The main concern in the New Hydro is its present reliance on the Aboriginal and Northern Affairs Branch (ANAB) to deal with issues of concern to Aboriginal people. Presently, ANAB does not have the expertise to properly deal with Aboriginal concerns, nor does it have the power and ability to have a significant impact on corporate decisions.

O.N.A. recommends that ANAB either be dismantled or given the mandate to operate effectively within Hydro. If it does not have such a mandate, its existence is in fact detrimental. O.N.A. agrees that ANAB could play an important and effective role in helping to resolve Aboriginal issues. To do so, its original vision and objectives must first be re-examined. Furthermore, staffing levels are not sufficient. Finally, staff must have the necessary expertise to properly deal with Aboriginal peoples. O.N.A. submits that ANAB should take advantage of the real Aboriginal experts, particularly Aboriginal peoples themselves. Hydro should engage in a recruitment program which seeks to add experienced Aboriginal people, offering incentives to attract skilled personnel from a range of people, both on and off reserve. Finally, the O.N.A. also sees an expanded role for a properly constituted ANAB, in assisting in environmental management

B. HUMAN RESOURCES PLAN

The O.N.A. is also concerned by the fact that the neither the compensation, benefits, pay for performance program, nor the performance achievement plan for executives, nor the corporate performance measures, have any benchmarks or methodologies for assessing performance of a business unit or an individual employee in relation to their ability to deal with aboriginal issues. A properly constructed ANAB could also assist in this regard, identifying and clarifying the issues and possible solutions.

IV. ENERGY SERVICES AND ENVIRONMENT GROUP

One important way Hydro has committed to promote energy efficiency is to support NUGs where appropriate. O.N.A. submits that the Board should direct Hydro to study the possibility of establishing a fund similar to the

"Green Fund", to assist in the development of joint ventures and partnerships with Aboriginal communities, whether on or off reserves. Such a fund could be referred to as the "Aboriginal Rights Energy Trust" (APRET) and could be administered by Hydro in conjunction with Aboriginal communities and groups, both on and off reserve,

V. RATES

The O.N.A. does not believe the zero rate increase will provide Hydro with the necessary resources to properly address and resolve issues of concern to Aboriginal peoples, and submits that the Board should require Hydro to report on its ability to deal with these issues given its current financial constraints and re-assess the issue in a subsequent hearing.

VI. COSTS

The O.N.A. respectfully requests that it be awarded 100 per cent of its costs.

EXECUTIVE SUMMARY OF POWER WORKERS' UNION

The purpose of this document is to provide the Ontario Energy Board with a brief summary of the arguments and a complete list of the recommendations proposed by the PWU.

In reading this summary, it is important to bear in mind that reference to the PWU's entire Final Argument must be made for a complete understanding of PWU's position.

In accordance with the Board's direction, the PWU has restricted its submissions here and in its Final Argument, to those issues which are of significance to the PWU, and on which it has substantive comments. As a result, the Final Argument deals only with a selection of matters outlined on the Issues List.

This summary follows the order of the Board's recommended structure for Final Argument.

INTRODUCTION

The Power Workers Union ("PWU") is the bargaining agent and representative for more than 14,000 Ontario Hydro employees. The PWU is committed to obtaining and maintaining truly effective employee input in all aspects of corporate decision making. Such input will benefit not only the employees but also the Corporation as a whole and the Corporation's customers. The PWU has a large stake in the Corporation's response to its current situation and to its strategic options as it moves into the future.

CHAPTER I: RESTRUCTURING

B. Organizational Restructuring

1. Principles and Process of Restructuring

Ontario Hydro's restructuring should have had and indeed did have, the promise of starting a new era of truly meaningful employee participation and involvement in the Corporation. Unfortunately, that opportunity has been missed, avoidable costs have been incurred, and constructive initiatives rejected. In many respects the relationship between the Corporation and its employee representatives has worsened. This has the prospect of severely limiting the Corporation's ability to meet the challenges it now faces, and has serious potential consequences for customer service.

Recommendation:

That an external review of the state of the relationship between Ontario Hydro and the PWU be undertaken, with the results reported back to the OEB in HR 23.

5. Staff Reductions

Ontario Hydro's staff reduction process was flawed in two fundamental ways. First, it failed to capture all available cost savings. In particular, opportunities to eliminate excess managerial, supervisory and administrative positions were missed. Secondly, it has left the Corporation unable to meet some of its most fundamental operational priorities adequately. This will lead to decreased reliability of the system, which in turn will impact adversely on customer satisfaction and add to the Corporation's costs in the longer term. In the view of the PWU, a bottom-up "functional" review of the new Ontario Hydro organization would both ensure system reliability and control longer term costs.

Recommendation:

That Ontario Hydro immediately conduct, in conjunction with the PWU and other employee representatives, a functional review of the new Ontario Hydro organization. The goals should be to maximize cost savings and to staff the organization in the most cost effective way, bearing in mind the operational needs of the Corporation. This review should be the basis for any future changes to organizational structures.

7. Implications of Restructuring on the Current Regulatory Processes

Ontario Hydro's restructuring has exacerbated the limitations of the current regulatory process. Ontario Hydro's increased commercial orientation, which is a response to the changing electricity market, has diminished the transparency of its operations, prevented effective review by the Board, and compromised Ontario Hydro's public policy goals.

Recommendation:

That the Ontario government initiate a review of the existing non-binding regulatory process in order to adapt it to the new realities of a restructured Ontario Hydro and a potentially competitive market for electricity.

CHAPTER II: CORPORATE OVERVIEW

C. Net Income Forecast

A 0% average rate increase for 1995 is an important aspect of the sustainability of Ontario Hydro's new direction. This can be addressed through cost savings obtainable through the functional review referred to above. If necessary, the net income target could be adjusted without compromising long term financial targets.

Recommendation:

That Ontario Hydro modify its financial plans so as to accommodate a 0% average rate increase.

G. Human Resources Plan

1. Corporate Incentive Compensation Scheme

The PWU supports the introduction of an executive incentive compensation scheme for 1995. The design of the proposed scheme, however, gives rise to a number of concerns. In light of the financial austerity imposed on the Corporation and other employee groups in the short term, the scheme appears to be excessively generous. Secondly, the regularity with which the targets are designed to be met indicates that the scheme rewards routine rather than truly superior performance.

Recommendations:

(1) That a performance based executive incentive compensation scheme be introduced for 1995;

(2) That any payout based on 1994 performance be eliminated or reduced;

(3) That any performance payout for 1995 be adjusted so that aggregate executive compensation should not exceed that in 1993;

(4) That targets be adjusted in line with U/T 1.3.1 so that the programs provide a net benefit only when truly superior performance is achieved (i.e., 4 years in 10).

2. Total Compensation Surveys and Labour Productivity

The PWU is concerned that the total compensation survey reviewed in the hearing does not adequately reflect comparative labour costs, nor does it incorporate appropriate measures of labour productivity. The development of jointly agreed upon standards would provide for more relevant measures, and would assist this Board.

Recommendation:

That Ontario Hydro and the PWU develop a jointly agreed upon approach to future compensation and productivity studies to ensure that comparisons are as reliable and meaningful as possible.

CHAPTER IV: ELECTRICITY GROUP

A. Maintenance and System Reliability Issues

The PWU is concerned about the impact of the restructuring on system maintenance and reliability. Short term financial constraints have led to serious reduction in both preventative maintenance and capital projects designed to ensure the integrity of the generation and distribution system. The projected decreases in bulk electrical

system reliability are a significant warning signal. There are serious consequences for customer service and future costs. A functional review should reveal the priority of this issue and allocate resources accordingly.

Recommendations:

(1) **That the Grid Business Unit adjust maintenance activities in order to maintain a CDI at no worse than 21 system minutes through 1996;**

(2) **That the "functional review" of Ontario Hydro's organizational structure recognize the priority of system maintenance and reliability in assessing appropriate staffing resources; and**

(3) **That the external review recommended in Chapter I recognize the critical importance of employee involvement in the development of practices to ensure the proper maintenance and integrity of the electrical generation and distribution system.**

C. Nuclear Business Unit

5. Bruce Unit 2 Shutdown

There was evidence in the hearing concerning the rationale for Ontario Hydro's decision to advance the shutdown of Bruce Unit 2 to 1995. There appears, however, to be considerable uncertainty as to whether or not this decision will lead to an irrevocable closure of the facility. It is essential that this issue be resolved. The cost effectiveness of a permanent closure of Bruce Unit 2 would appear to be questionable, and the economic wisdom of this decision should be examined fully prior to any irrevocable action being implemented.

Recommendations:

(1) **That Ontario Hydro determine, prior to taking Bruce Unit 2 out of service, the technical, financial and regulatory feasibility of restoring Bruce Unit 2 to service from a mothballed state, and if necessary, to take those steps necessary to ensure that such a return is possible;**

(2) **If it is determined that a mothballing scenario for Bruce Unit 2 is not feasible, then, prior to Bruce Unit 2 being taken out service, Ontario Hydro shall complete a cost effectiveness analysis of Bruce Unit 2 rehabilitation versus closure in accordance with Integrated Resource Planning principles.**

D. Fossil Business Unit

2. Mothballing - Lennox and Lambton

On the basis of concerns regarding the cost of maintaining excess capacity, Ontario Hydro has determined to mothball units at Lennox and Lambton TGS. The evidence indicates the overall economics of these decisions is marginal. Further, there would appear to be no reason why these decisions could not be deferred until at least 1996, with little or no cost to Ontario Hydro. In light of the uncertain and changing economics

surrounding these situations, deferring this action would permit Ontario Hydro to make a better decision, in light of the information as it exists at that time.

Recommendation:

That Ontario Hydro defer its decision to mothball facilities at Lennox and Lambton until at least 1996 after review of the circumstances as they exist at that time.

CHAPTER V: ENERGY SERVICE AND ENVIRONMENT GROUP

B. NUGs Strategy Programs

1. NUG Costs

In the current surplus generation capacity situation, the legacy of Ontario Hydro's past approach to NUGs has proven to be inflexible and expensive NUG commitments. Indeed, the cost to Ontario Hydro of power from NUGs significantly exceeds its own incremental generation cost. This has led to a measurable rate impact both in 1995, and in subsequent years. The PWU proposes a basis for the reduction in NUG expenditures on an ongoing basis that protects the legitimate economic interests of NUG operators. This approach should be applied by Ontario Hydro on a systematic basis to its NUG agreements. In addition, any future NUG acquisitions should be designed in a manner so as to recognize and address the current concerns regarding cost and flexibility.

Recommendations:

(1) That Ontario Hydro systematically review all outstanding NUG contracts with a view to reducing costs paid out on an ongoing basis. Ontario Hydro should enter arrangements to have NUG operators not produce power where it is economical on a total system basis for them to do so.

(2) That Ontario Hydro ensure that any future NUG contracts provide for a mechanism for Ontario Hydro to refuse to take power when it is uneconomic for them to do so in terms that reflect operating costs that are saved as a result.

2. "Preferred" NUGs

The Board heard evidence from IPPSO that notwithstanding the current capacity surplus situation, Ontario Hydro should commence the immediate procurement of "renewable" NUGs. This should take place even prior to the development of a comprehensive, Integrated Resource Planning process for economic assessment. As the effect of this proposal is essentially to pre-judge the outcome of any future IRP process, it should be rejected.

Recommendation:

That no new NUG capacity be procured, preferred or otherwise, unless the project is assessed to be "economic" as a result of an IRP process.

C. Energy Management Programs

The status of Ontario Hydro's revised Demand Management initiatives was reviewed. In light of Ontario Hydro's short term financial circumstances, as well as the surplus generation capacity situation, there is good reason for Ontario Hydro's over-all spending on Demand Management to be reduced. The program should be narrowly focused and designed to target "lost opportunities" and obtain them in the most cost effective means possible. Such programs must be limited so as not to threaten short term rate objectives.

Recommendations:

(1) That Ontario Hydro re-examine its Demand Management activity and curtail or eliminate any program not specifically targeted towards the procurement of "lost opportunities". Cash incentives should be used, if necessary, where they are the most cost effective means of capturing the lost opportunities.

(2) That Ontario Hydro re-examine its Demand Management activities to ensure that the programs, both individually and collectively, do not jeopardize short term rate objectives.

CHAPTER VI: RATES

B. Experimental/Optional Rates

In this year's filing, Ontario Hydro has introduced a variety of optional rates. Further, non-rate load retention activities were also undertaken. The Backup Power Rate is an important initiative, designed to recapture the costs imposed on the system by customers obtaining alternate sources of supply. Ontario Hydro's load retention activities demonstrates the dilemma faced by the Corporation and by this Board in reviewing Ontario Hydro's activities. While the pursuit of such activities gives rise to serious concerns as to equity, the risks of not doing so would appear to be even greater. In light of these difficult circumstances, so long as there is an opportunity for transparent review, Ontario Hydro should be free to engage in such load retention activities, where necessary, but only on a very limited basis, and only where the effective rates exceed Ontario Hydro's marginal costs of serving the customers in question.

Recommendations:

(1) That the proposed backup rate for 1995 be approved. The Board should re-examine in HR23 the appropriate cost recovery basis for the Backup Power Rate.

(2) That future Order-in-Council approvals of load retention arrangements be conditional upon this Board's review and approval on an interim and *ex-parte* basis

of those arrangements, with a more complete review at the subsequent annual rate hearing.

CHAPTER VII: COSTS

The PWU requests 100% of its reasonably incurred costs in conjunction with its intervention in this hearing.

EXECUTIVE SUMMARY OF THE SOUTH BRUCE COMMITTEES

INTRODUCTION

The South Bruce Committees include the South Bruce Impact Advisory Committee, the South Bruce Community Future/Business Development Corporation, and the South Bruce Economic Development Corporation (the "SBC"). The SBC is responsible for planning for and responding to impacts associated with the restructuring of Ontario Hydro, economic diversification, and the long-term sustainability of the 10 municipalities which are located in the vicinity of the Bruce Nuclear Power Development ("BNPD"). Those 10 municipalities are recognized by Ontario Hydro as communities which are directly impacted by Ontario Hydro development and restructuring.

I. RESTRUCTURING

A. The Objectives of Restructuring

1. Corporate Mission

The SBC strongly supports the Mission Statement. However, the SBC has serious concerns about the ability of Ontario Hydro to achieve these objectives given the financial crises which the corporation is experiencing. In addition, Ontario Hydro will experience significant difficulties in fulfilling its Mission Statement, in part or in whole, because the objectives (e.g. "full cost accounting" vs. "price dictates cost") are inconsistent and inherently in conflict. If the Board accepts that Ontario Hydro's paramount priority is short-term profitability and reduced indebtedness, then the SBC submits that the Board must also find that the implementation of full cost accounting and Integrated Resource Planning ("IRP") will not be achievable within the foreseeable future.

3. Corporate Strategy (Sustainable Development)

The strategy that has been pursued by the Energy Services and Environment Group (the "ESE Group") has four general objectives: customer energy efficiency, customer services, customer retention and customer development. The SBC submits that the ESE Group strategy has been too narrowly defined. It is submitted that this strategy focuses almost exclusively on customer electricity efficiency rather than **energy** efficiency. Electricity efficiency alone will not enable Ontario Hydro to achieve significant energy efficiency success. As one example, the lack of substantive progress by Ontario Hydro in developing its own internal electricity efficiency program is evidence that Ontario Hydro itself is not capable of achieving significant electricity savings without serious effort and delay.

The energy efficiency programs are focused almost exclusively on **customer electricity** programs, rather than energy programs. This self-imposed limitation will not enable Ontario Hydro to make significant advancements towards enabling Ontario to become the most **energy** efficient economy in the world.

If the Board accepts these conclusions, then this necessarily implies that Ontario Hydro will have to reach beyond the traditional electricity sector boundary to the broader energy system in order to achieve its provincial objectives. If Ontario Hydro's paramount priority is fulfilling its financial objectives, then Ontario Hydro must focus on increased utilization of its existing sunken capital in non-traditional and creative ways. The SBC submits that this can occur through the implementation of industrial ecology in conjunction with the private sector, whereby the private sector provides the capital and technology which Ontario Hydro is presently unable to provide.

The Bruce Energy Centre is an example of applied industrial ecology, whereby industry is located around a generating station in an ecopark. The Bruce Energy Centre has been described by Mr. Strong as an "excellent example of sustainable development". However, Ontario Hydro admits that it has not "moved very far" in learning from the Bruce Energy Centre experience.

II. CORPORATE OVERVIEW

The SBC has no comments with respect to the corporate overview.

III. ONTARIO HYDRO ENTERPRISES

The SBC has no comments with respect to Ontario Hydro Enterprises, other than to note that the inability of Ontario Hydro to achieve energy efficiency and sustainable development projects in Ontario could act as a barrier to the success of Ontario Hydro Enterprises in achieving its business plans in Ontario and overseas.

IV. ELECTRICITY GROUP

The SBC has no comments with respect to this area of the evidence.

V. ENERGY SERVICES AND ENVIRONMENT GROUP

The comments of the SBC with respect to the Energy Services and Environment Group and, in particular, the Energy Services Planning and Strategy can be found under the comments regarding the Corporate Strategy (Sustainable Development) section of the SBC submissions.

VI. RATES

B. Proposed Rates

1. Rural Rate Assistance

In general, the SBC takes no position on the proposed rural rate and rural rate assistance for 1995. However, the SBC submits that the characterization of industries which locate in ecoparks as rural customers is inappropriate and inconsistent with the corporate Mission Statement and the ESE Group's strategy of customer retention and economic development.

The rural rate assistance does not significantly assist in overcoming the competitive disadvantage that exists between those industries which locate in the rural power district relative to direct customers or to industries which locate in other jurisdictions. It is submitted that the cost recovery assumptions which are utilized in setting the rural rate are not applicable to ecopark industries. While Ontario Hydro may have a legitimate concern regarding a "flood gates" scenario if it should offer alternative rates to rural industries in general, it is submitted that requiring industries to locate in an ecopark will effectively eliminate this concern.

If Ontario Hydro does not offer a rate which recognizes the unique characteristics and advantages associated with industrial ecoparks, then industrial ecoparks will have little opportunity to develop. If Ontario Hydro is to achieve its Mission of assisting **all** of the Province of Ontario as a whole, then it must provide a flexible rate category which can be applied to recognize the unique issues associated with ecoparks.

2. Direct Customer Rate

It is submitted that the direct customer rate can serve as an effective model for the proposed ecopark rate. Industries within an ecopark can be viewed as a small Direct Customer class in their own right. A basic demand rate can readily be established for the ecopark as a whole. Discounts or surcharges can be charged as appropriate for the particular industry, in order to fairly reflect that industries actual demand and value to the ecopark as a whole.

Ontario Hydro already recognizes various categories of non-common costs for the existing Direct Customer rate class and can calculate all the variations in the non-common costs for each of the 101 customers within that rate classification. The SBC submits that if Ontario Hydro can provide this level of service for a class of customers who are located throughout the Province of Ontario, Ontario Hydro can provide the same type of service for customers located within an ecopark. The only barrier to the ecoparks being able to receive service similar to the Direct Customer class is Ontario Hydro's requirement that each individual industry must require at least 5MW of electricity in order to qualify. This is the barrier that prevents Ontario Hydro and the Province of Ontario from being able to effectively market, initiate and develop industrial ecoparks.

C. Experimental/Optional Rates

1. Real Time Pricing

The SBC supports the movement by Ontario Hydro towards pricing based on marginal costs. The SBC submits that in the absence of an ecopark rate, a real-time pricing rate would provide some assistance to ecopark industries, in that industries might be attracted that otherwise would not locate in an ecopark. However, because the real-time pricing rate is only offered to large industrial customers, any availability of this rate to attract industries to ecoparks or to rural areas in general is highly limited.

2. Surplus Power Rate

The SBC fully supports the Surplus Power Rate. Unfortunately, as with the Direct Customer Rate and the Real-Time pricing rate, this rate is not available to industries which require less than 5MW of electricity. The SBC submit that if an ecopark was characterized as the customer, such a rate would assist in attracting industrial facilities to the ecopark.

The evidence of the IEDC Panel established and that there are industrial uses which can readily operate on a surplus power basis. An electrolyser is particularly well suited as it is fully interruptible and can load follow incremental changes to Ontario Hydro's system. In addition, the end products of electrolyses are key components for alternative transportation fuels which result in reduced environmental emissions. Enabling electrolysers to operate in Ontario would assist Ontario Hydro in indirectly achieving efficiencies and environmental benefits in the broader energy system.

3. Load Retention Rates

The SBC recognizes that Ontario Hydro is under serious competitive pressure and that actions such as a Load Retention rate is likely necessary at this time in order to maintain customers. The SBC submits that the same policy might also be applied as a competitive advantage over other jurisdictions in order to attract industrial customers to Ontario. The SBC recognizes that there are inherent dangers in establishing a rate which is based upon attracting customers with potential artificially low rates. However, in light of the intensely competitive nature of the energy services sector, Ontario Hydro should consider utilizing this rate to attract industries. In addition, the SBC recommends that Ontario Hydro should offer this rate to industries with less than 5MW of demand. The SBC would submit that the greatest opportunity for attracting industry is for small to medium-sized facilities and that, accordingly, rate initiatives should reflect this market opportunity.

D. Rate Restructuring Initiative

The SBC generally supports the rationale for and the appropriateness of the rate restructuring objectives and plans for 1995. However, the SBC urges the Board to recognize that the rate restructuring is effectively only for very large industry facilities (e.g. those facilities which require 5MW or more of electricity). The SBC urges the Board to

recognize that in the foreseeable future the greater opportunity to rebuild Ontario's industrial base is with small to mid-size industrial projects - not the large to mega-scale projects of the past decades. If the Board accepts this proposition, then Ontario Hydro's rate restructuring is deficient in that it will not significantly assist in achieving a competitive provincial economy through attracting small to medium-sized industrial facilities.

The existing and proposed rates effectively negates any opportunity to move forward with industrial ecology and the further development of ecoparks in Ontario. The SBC urges the Board to conclude that Ontario Hydro must either offer an additional rate class which meets the unique requirements of ecoparks or, alternatively, characterize ecoparks as a Direct Customer class, with a basic demand rate. As the basic principles for either approach already exists within the rate restructuring initiative which is being undertaken by Ontario Hydro, the SBC submits that Ontario Hydro would be readily able to provide such an ecopark rate for 1995.

EXECUTIVE SUMMARY OF ONTARIO HYDRO

Section 1.0 - INTRODUCTION TO ARGUMENT

HR 22 has provided an important opportunity for broad public review and discussion of the goals, objectives and achievements of the new Hydro, and the conclusions reached by the parties on the many issues canvassed during the proceedings have been reviewed with interest.

In this argument, Hydro has attempted to respond to the recommendations and observations made by intervenors and OEB Staff. Inevitably, final argument focuses on differences in view and the specific plans and programs for the rate year. But at the broader level, the Corporation is greatly encouraged by the widespread support for the restructuring carried out to date, and for the objectives Hydro is pursuing through that restructuring.

Hydro also notes the numerous recommendations for further public and stakeholder discussions on the future of the electricity sector. Hydro believes these issues require early attention and resolution so that the electricity sector in the province can be appropriately repositioned to face growing competitive pressures. Regulatory reform will be necessary, as Mr. Strong and Dr. Kupcis have stated - but this reform must complement, and be carried out in conjunction with, changes to the industry structure in Ontario. Regulatory reforms which do not take place in that context face a high risk of being inappropriate and counterproductive. For example, the different sectors of an unbundled industry may require different forms and degrees of regulation. It is unlikely that a one-size-fits all solution will be appropriate or possible. Hydro looks forward to active involvement in whatever process is established for discussion of these issues.

While the importance of electricity sector issues cannot be understated, Hydro submits that the HR22 Hearing should lead the Board to advise the Minister that the sustainable energy development principles being applied by the Corporation, together with the other objectives addressed in carrying out the restructuring to date, have positioned the new Hydro to face the future with confidence and pride.

Chapter I - RESTRUCTURING

A. Objectives of Restructuring

The primary objectives of the restructuring were to achieve competitive rates, improve financial performance, enhance customer orientation and foster energy efficiency and sustainable energy development.

Restructuring was driven by a number of factors, including: growth in Hydro's costs and debt, declining net income, reduced rate competitiveness, customer dissatisfaction with Hydro's ability to control costs, lack of accountability and responsiveness, and an increased awareness by customers of supply alternatives.

Hydro submits that on the basis of the evidence discussed in the hearing the objectives of the restructuring are appropriate. Hydro has undertaken initiatives which it is determined to maintain and reinforce in order to ensure the long term sustainability of the benefits of restructuring. These initiatives are discussed in the previous sections.

1. Corporate Mission

Hydro believes that its mission statement is appropriate and achievable. The mission statement was developed in consultation with government and approved by Hydro's Board of Directors and provides fundamental strategic direction for Hydro's business activities. Elements of the mission were discussed at internal and external round table meetings chaired by Mr. Strong in the spring of 1993. The key aspects of the mission reflect that:

- Hydro's activities must serve and benefit the province as a whole;
- Hydro's own competitiveness will contribute to the competitiveness of the provincial economy;
- energy efficiency is a cornerstone of achieving that competitiveness in Ontario; and,
- sustainable development is the required pathway to a secure future, corporately, provincially and globally. (Ex. 1.1.10)

In Hydro's view, sustainable development principles will engender a greater degree of efficiency in Hydro's economic decision-making and management practices, and complement Hydro's traditional service objectives.

The Board should advise the Minister that the mission statement is appropriate for Hydro.

2. Task Force Process

The Board should advise the Minister that the Task Force process was responsive to the objectives of the restructuring, and that the recommendations of the Task Force on Change provided a solid basis for corporate restructuring and will enable Hydro to achieve its corporate mission.

3. Corporate Strategy

The major elements of Hydro's Corporate Strategy are outlined in the exhibits filed in the hearing. These strategic elements provide effective guidance to Hydro in achieving its mission.

3a. Price Dictates Cost

The Board should advise the Minister that the price dictates cost principle is consistent with Hydro's obligations under the *Power Corporation Act* and that it reinforces effective recognition of competitive pressures and the need to change cost structures. Hydro's commitment to minimize rate increases is consistent with the strategic principle of making electricity available at a price that enhances the competitiveness of Ontario's economy.

3b. Rates

Hydro's rate strategy set rates in 1994 at the 1993 level and restricts rate increases for the balance of the decade to no greater than the rate of inflation. Hydro will set rates based on the price dictates cost philosophy consistent with the provisions of the *Power Corporation Act* (PCA). This approach means that business unit costs must be managed within revenues provided by rates which are affordable by customers.

Hydro submits its proposed average rate increase of 1.4 per cent is appropriate and consistent with this rate strategy.

Hydro recognizes that the inflation rate is a proxy for market price and, as noted by Mr. Strong, "hopefully there may be occasions in which we might do better than that. We certainly don't look at that as an objective that we should be entirely satisfied with". (Vol. 3, TR 407)

Hydro believes that rates must be set to achieve a reasonable balance between customers needs for affordable prices, Hydro's obligation as a business to be financially sound, and the costs required to provide an appropriate level of service in a safe and sustainable manner.

3c. Sustainable Energy Development

Hydro is committed to the application of sustainable energy development principles to its activities. A key objective of SED is best use of energy, human, financial, and natural resources. By optimizing resource use and minimizing environmental degradation, SED also serves economic development, especially over the longer term. Reducing the energy required to deliver products or services usually reduces costs and increases competitiveness.

Hydro's transition to a more sustainable future will require changes in corporate culture. A positive institutional culture is required - one that focuses on full participation and empowerment of employees, ensures reasonable risk-taking, recognizes and rewards achievements/innovation, and reskills employees to meet the new challenges of sustainable development.

The Task Force on Sustainable Energy Development (TFSED) established a foundation for giving practical effect to Hydro's commitment to leadership in respect of environmental and sustainable development. The program for implementation of the TFSED recommendations is proceeding and will be an integral part of the business planning process. Hydro is prepared to report on the status of the program at the next rate hearing.

3d. Integrated Resource Planning

Hydro intends to use integrated resource planning (IRP) for providing guidance on major resource choices. Local IRPs are conducted at the business unit level, consistent with Hydro's IRP principles.

3e. Full Cost Accounting

Environmental costs, which are inherent in Hydro's operations, must be addressed and accordingly, full cost accounting will be incorporated into Hydro's IRP processes. Where possible, external impacts (positive and negative) will be identified, quantified, monetized and incorporated into the decision-making under that process. Where there are external impacts that have not been monetized or are not amenable to monetization, they will be considered qualitatively.

Full Cost Accounting (FCA) builds on work that Hydro has done to identify and evaluate the environmental and socio-economic impacts of its actions. The added dimensions of FCA which Hydro is moving towards are: quantifying the impacts of its actions on an ecosystem basis, monetizing these impacts where possible, and developing more sophisticated evaluation systems which will allow Hydro to evaluate qualitative and quantitative (and where possible monetized) data and factor these more effectively into decision-making processes.

At this time, Hydro has quantified, and for some factors, monetized the externalities associated with the operation of its fossil and nuclear stations. These estimates are considered preliminary and subject to change as its work progresses. Hydro continues to support a research program on FCA, as recommended by the Task Force on Sustainable Energy Development. As part of this research effort, Hydro will be working with academic and professional associations and others to foster a better understanding and application of FCA.

Hydro supports the Damage Function Approach (also referred to as Damage Costing Approach) to identify, quantify and where possible, monetize environmental and socio-economic externalities (positive and negative). The Damage Function Approach attempts to place a dollar value on the actual environmental and socio-economic externalities. This approach focuses on actual natural and socio-economic impacts and costs and as such, provides a more realistic determination of potential external costs and benefits.

Hydro does not support the Cost of Control Approach for the monetization of externalities. The Cost of Control Approach uses the cost of the pollution control equipment, usually the cost of Best Available Control Technology, as a proxy for the monetary value of damages to the environment. In Hydro's view, these costs bear little relation to the actual environmental and socio-economic damages.

Hydro does not support Full Cost Pricing at this time. Hydro supports the notion that energy prices should reflect full costs; however to do so in isolation from other energy producers and suppliers would lead to an inefficient allocation of resources.

B. Organizational Restructuring

The Board should advise the Minister that the organizational restructuring will assist Hydro in the realization of its mission. The restructuring has resulted in reduced costs, greater accountability, and lower debt. The restructuring has also re-fashioned the corporation fundamentally to make it more business-like, open, flexible, competitive, and more sensitive to customer expectations.

1. Principles

Hydro submits that the principles of the organizational restructuring were well-defined and responsive to the direction set out in new corporate mission statement.

The basic principles of restructuring are reflected in the new business model which is based on a business orientation, financial accountability and culture change.

Hydro has outlined how the new organizational structure supports the Corporate mission and the strategic principles.

2. Process of Restructuring: Financial Statement Component of Business Unit

For 1994, Hydro established the financial statement components for business units by:

- assigning specific assets, liabilities, revenues and costs to business units where they could be identified with a unique business unit; and,
- allocating the remaining items to business units based on reasonable allocation rules.

Hydro submits that the resulting financial statements for business units facilitate the financial accountability of business units.

3a Authority and Accountability of Groups and Units

Hydro has in place the appropriate authority and accountability structures for the CEO and for its various groups and units, consistent with the objective of making Hydro more business-like and accountable. Hydro's new accountability model is customer-oriented and sees competitiveness as its goal, business units as the structure, and accountability as the motivator.

The key elements of this model are a planning process, implementation process and a control process. The new accountability model places greater emphasis on business plans, budgets and performance contracts and less emphasis on individual transactions within approved plans.

3b. The New Organizational Structure

Hydro submits that the new organizational structure for the Corporation was developed consistent with the overall objectives of restructuring.

The Task Force on Change recommended the adoption of a business model which recognized three distinct roles for Hydro as a step in meeting the challenges which confronted the Corporation. The three roles are i) the supply of electric power to the bulk electricity system, and distributors (the Electricity Co.) ii) the carrying out of responsibilities for Retail Service, Electrical Inspection, and Energy Management needs of Hydro's customers (Energy Service Company) and iii) the provision of services which add value to the company, and are supplemental to the supply of power (Ontario Hydro Enterprises).

The new Ontario Hydro Corporate business model is designed to achieve the following fundamental purposes:

- to separate the major business activities in order to make them more accountable and to clarify their basic viability;
- to facilitate their operation on business principles under accountable managers;
- to facilitate more appropriate decentralization of support services.

This new structure will assist Hydro in meeting its current challenges and provides the flexibility to deal with a variety of possible futures. As noted above, Hydro will continue to monitor developments in the electricity sector and will review the potential effects of these developments on the restructuring efforts.

3c. Organizational Hierarchy

Hydro is committed to ongoing review of its organizational hierarchy consistent with its pursuit of efficiency and cost effectiveness.

4. Capital Reductions

A reduction in capital expenditures is one of the cost reduction programs that will enable Hydro to achieve its rate objective of no real rate increases for the balance of the decade. The reduction in capital spending entailed the deferral or cutting of non-essential expenditures without jeopardizing the reliability of the system. Hydro recognizes that exposure to debt charges must be reduced in order to improve operational and financial flexibility.

As described by Dr. Kupcis, significant capital cuts were made during 1992 and 1993.

As part of the capital reductions that have occurred over the past two years Hydro conducted a Capital and Capacity Review (CCR) in the fall of 1993 to address the capacity oversupply problem. The results of this study were to advance the shut down of Bruce Unit 2 from 1997 to 1995 and to mothball two units at each of Lennox and

Lambton. These decisions with the other capital reductions decisions assist Hydro in dealing with its surplus capacity and in achieving the financial goals of the Corporation.

In January 1994, Hydro's Board approved a ten year capital program of $16 billion which represented a $24 billion reduction from last year's submitted plans. Hydro submits that the capacity reduction decisions were sound and essential in order to address the surplus and the financial situation of the Corporation. The future use of an integrated resource planning process will provide a means of integrating capital investments and reflecting different financial and risk requirements.

5. Staff Reductions

Hydro has successfully carried out a major downsizing of the Corporation in a cost effective manner achieving significant staff reductions as previous OEB reports have recommended. By year end 1993, the work force was reduced by 9,632 or 28 per cent without adverse impact on system reliability, generation capability or employee safety, and exceeding the recommendations contained in the Task Force on Change. The use of voluntary programs was an effective tool in achieving this reduction.

6a. Achievement of Restructuring Objectives

Hydro submits that the organizational restructuring will achieve the restructuring objectives.

One of the most important aspects of sustaining the gains made through the restructuring process is the change in culture at Hydro to one which emphasizes accountability and customer orientation.

6b. Cultural/Restructuring Change

Hydro is committed to reinforcing accountability, customer orientation cultural change, and restructuring initiatives. These include such interrelated activities as benchmarking, re-engineering, pay for performance, and the transfer pricing scheme.

7. Current Regulatory Process

Hydro submits that the organizational restructuring is consistent with the current regulatory process.

C. Financial Restructuring Issues

Hydro submits that the financial restructuring is consistent with the objectives of the organizational restructuring and the new mission of Hydro. The consolidation of the equity accounts, asset write-offs and debt reduction plan have resulted in a more business-like orientation with immediate cost efficiencies resulting in a 0 per cent rate increase for 1994, a 1.4 per cent rate proposal for 1995, and a commitment to rates no greater than the rate of inflation for the balance of the decade.

1. Account Restructure

In December 1993, Hydro's Board of Directors approved a recommendation for the creation of one consolidated retained earnings account. Accordingly, the accumulated debt retirement appropriation (ADRA), the reserve for stabilization of rates and contingencies (RSRC) and contributions from the Province of Ontario were consolidated into a retained earnings account.
The opinion of the external auditors, Ernst & Young which confirmed that, provided Hydro continues to meet its legal requirement to collect on a sinking fund basis amounts for statutory debt retirement when setting its rates, there were no accounting constraints on the creation of one retained earnings account. The creation of one retained earnings account allows the Corporation to proceed with the normal commercial basis of accounting by writing off losses and charging them against the retained earnings balance.

It is Hydro's position that the creation of one retained earnings account and the subsequent charging of the restructuring costs to the retained earnings account meets legal requirements and provides the Corporation future flexibility in terms of removing from the balance sheet the burden of future amortization charges to the income statement from assets that Hydro believed had no future value.

2. Debt Structure

Please see comment on Debt below.

3. Asset Writedowns

In February 1994, Hydro's Board of Directors approved the restructuring provision of $3575 million, to be written off to 1993 net income. This provision consisted of $1048 million in direct restructuring costs, and $2527 million in asset write-offs including unamortized deferred costs, nuclear fuel inventory, Pickering payback, and excess generating capacity.

It is Hydro's position that the direct restructuring costs and writeoffs are appropriate and will have a positive impact on net income over the near term as the amortization associated with a portion of the writeoffs will no longer be charged to future years.

3a. Pickering Payback Agreement

It is Hydro's position that the write-off of the unamortized deferred cost associated with the Pickering Payback Agreement is appropriate. The amount of the original asset was accumulated over the 1983 through 1988 shutdown period and set up as a deferred cost intended to be recovered in future years in accordance with the Agreement. The Agreement is among Hydro, the Province of Ontario and AECL who shared in the funding for the construction of Pickering Units 1 and 2. Uncertainty regarding the future value of the asset existed previously. Because of the continuing uncertainty regarding the future value of this asset, it was determined that the asset should be written off

as part of the restructuring costs, consistent with the treatment of other balance sheet items that were previously deferred and amortized.

3b. Other Deferred Costs

In December 1993, Hydro decided to no longer seek recovery of $772 million, related to the cancellation of the long-term uranium supply and power purchase contracts which, as a result of past decisions, were being carried on its balance sheet for recovery from customers in future years. It is Hydro's position that writing off these costs is consistent with approaches typically taken by commercial enterprises as a result of major restructuring initiatives.

3c. Nuclear Fuel Inventories

It is Hydro's position that the write off of the excess nuclear fuel inventory costs is appropriate and the business circumstances and the accounting treatment are fully explained. In summary, Hydro entered into long-term contracts with Denison Mines Limited (Denison) and Rio Algom (Rio) in the late seventies for the purchase of uranium concentrate to ensure an adequate supply of fuel for its nuclear generating stations. Subsequently, the price for uranium concentrate dropped significantly. As a result, in 1991 Hydro cancelled the Denison contract effective January 1, 1993 and renegotiated the contract with Rio pertaining to deliveries during the period 1991 to 1996 and terminated the Rio contract effective December 31, 1996.

Due to the higher prices committed to under the contracts, the nuclear fuel inventories were carried at amounts in excess of market value. In addition, the uranium concentrate that Hydro is committed to purchase from Rio during 1994 to 1996 is also at prices in excess of market value. At the time the Denison contract was cancelled and the Rio contract was renegotiated, certain losses incurred in the cancellation were recognized and set up as deferred costs to be amortized over future years. The excess fuel prices were left in inventories and in the future deliveries where they would become costs of future periods as the fuel was consumed. However, to be consistent with the decision to write off other deferred costs that were judged to provide little or no benefit to Hydro, it was decided that the excess value in inventories as at December 31, 1993 and in the future deliveries of fuel from Rio Algom should also be written off along with restructuring charges in 1993.

It is Hydro's position that this write off does not constitute a revision to its inventory valuation method for nuclear fuels.

3d. Bruce A Unit 2

It is Hydro's position that the write off of the estimated loss related to Bruce A Unit 2 net book value and other related costs is appropriate. Hydro responded to the Capital and Capacity Reduction Review decisions of the Board of Directors, by assessing the carrying value of several assets, including Bruce A Unit 2. Under GAAP, a loss must be recognized when it is known and measurable. Given the low probability that this unit will provide future revenue after its planned shutdown in September, 1995, it was decided that GAAP required that a 1993 loss be recognized. The loss was calculated using the expected net book value of the unit as at September 1995, adjusted for such items

as additional decommissioning, write-off of open capital work orders, recovery of the fuel channel replacement provision and accrual of human resource-related closing costs.

4. Debt Reduction Plan

Hydro submits that debt reduction is a priority. Ms. Clitheroe spoke of the various considerations that must be taken into account in debt reduction planning. The Task Force on Change made specific recommendations to significantly improve Hydro's financial soundness and flexibility and provide a sustaining financial structure for competitive rates. Due to the capital reductions, and other cost reduction programs implemented in 1993, capital requirements for the foreseeable future are forecast to be met by internally generated funds. In addition, the level of outstanding debt is forecast to decrease resulting in improved financial soundness and debt ratio.

5. Financial Restructuring

It is Hydro's position that the financial restructuring undertaken to date has made significant progress towards its objective of contributing to the more business-like and accountable mode of operation and in some areas has exceeded the targets recommended by the Task Force on Change.

The goal of business-like behaviour and accountability to customers has also resulted in the move to a price dictates costs approach. In support of this, the restructuring resulted in significant reductions on the OM&A side, on the interest cost side, and in the long term, on the capital side. Dr. Kupcis identified savings of $730 million in OM&A and $260 million in interest for 1995, and $24 billion in capital over 10 years.

The restructuring costs charged to 1993 and the reclassification of Hydro's equity accounts have had the combined effect of putting the accounts of Hydro on a more commercial basis, giving greater flexibility for setting rates in the future and accurately reflecting what productive assets are on the balance sheet of Hydro.

Hydro identified that although the restructuring from a financial perspective was necessary, it has resulted in the balance sheet showing, recording a current debt ratio of about 90/10. This 90/10 debt ratio is historically high and must be reduced over time. The establishment of business unit financial statements have been set up to reinforce restructuring objectives.

6. Corporate Level OM&A Adjustment

Hydro submits that it has made great progress in achieving and bettering the OM&A cost reductions that were part of the Task Force on Change recommendations. Hydro is now planning to exceed the target reductions in the area of OM&A. Hydro's current plan calls for a $690 million reduction and $730 million reduction for 1995, much more stringent targets than the Task Force called for. Further a 28 per cent decrease in OM&A measured 1992 over 1994 is expected.

Hydro put in place an unallocated $100 million OM&A target cost reduction for 1994 and 1995. This target OM&A reduction is part of the aggressive cost reduction targets put in place in September 1993.

Chapter II - CORPORATE OVERVIEW

A. Corporate Business Plan

1. Business Planning Principles

Hydro submits that the principles adopted for the development of Ontario's Hydro's 1994-1996 business plan effectively support the new Corporate Mission, and the objectives arising out of the Task Force on Change. The principles address support for the mission in the areas of rates, cost reductions, return on assets, energy efficiency and sustainable development. The principles emphasize the need to move the focus from providing a product to customer service while reinforcing Corporate values related to employee modification and accountability. The principles also address the need for business units to operate with autonomy while continuing to support the Corporate direction.

2. Budgeting and Planning Process

The budgeting and planning process (or business planning process) has changed to align with the price dictates costs approach and the concept of business unit accountability. Hydro recognizes that the process used for development of the 1994-1996 plans will need to be strengthened.

As one of these developments, corporate and business unit management are now in the process of establishing and agreeing upon a set of corporate and business unit performance measures which will facilitate the establishment of targets or expectations for the business units at the outset of the planning process as a guide to the development of detailed business unit plans.

3. Capital Budgeting Process

Last year's capital budgeting process resulted in substantial capital cost reductions. Reductions were based on two basic principles: Capital expenditures that could be deferred without jeopardizing the reliability of the system would be deferred and every planned expenditure that was deemed non-essential would be cut. Decisions on capital cost reductions were made but with due consideration to the impacts on both present and future customers.

4. Economic Forecasts and Outlook

Ontario's economy continues to recover. According to the updated forecasts, Ontario's economy is expected to grow by 3.6 per cent in 1994 and 4.0 per cent in 1995. The reduction in tobacco taxes is expected to reduce CPI inflation to 0.0 per cent in 1994. For 1995, CPI is expected to increase by 1.4 per cent in Ontario.

The increase in interest rates in the US, starting in February, has put upward pressure on Canadian interest rates accentuated by the downward pressure on the Canadian dollar. The upcoming Quebec election has also created uncertainty. Interest rates, however, should start to decline in 1995 as some of the uncertainty abates after the elections.

The Canadian dollar exchange rate is expected to be very volatile under these uncertain conditions.

5. Corporate Functions and Overhead Allocation

The Corporate functions have aggressively managed reductions in Corporate overheads and continue to be vigilant in monitoring expenditures. Overheads associated with Corporate functions are allocated to business units based on their OM&A level.

B. Policy on Transfer Pricing

1. Principles and Objectives

Hydro is currently developing an improved transfer pricing scheme as part of a proposed internal management framework for 1995. The objective of the framework is to provide a commercial orientation as well as correct operating signals and behavioural drives for decision making as described in the interim report on Revenue Allocation Asset Valuation (RAAV).

The interim transfer pricing scheme implemented in 1994, represented a first step towards implementing commercial business practices in internal Hydro transactions. Guiding principles for the development of the 1995 transfer pricing scheme include: a move towards commercial modality and competitive market behaviour, and transfer prices based on value rather than costs.

The RAAV team is also answering the need to revalue assets as part of the internal management framework. Asset revaluation, which provides a more commercial starting point for business units, based on economic value, is being considered as a complementary business driver to the transfer pricing scheme to influence the appropriate behaviour and provide the appropriate business motivation.

C. Net Income Forecast

Hydro's forecast of net income, in the rate submission, is $616 million in 1994, and $734 million in 1995. These levels of net income are significantly higher than those achieved over the past few years. They reflect the significant reductions in capital spending and operating costs as a result of task recommendations and subsequent cost reductions.

Over the balance of the decade net income levels are forecast to be sufficient to meet the SDR provision and contribute towards an improved debt/equity ratio. This goal will be accomplished through the continued aggressive management of costs.

1. Overall Corporate target

For reasons set out above Hydro submits that the level of net income for 1995 is appropriate.

Since Hydro's rate submission, financial results for 1994 have exceeded plan. However, there remains considerable uncertainty for both 1994 and 1995. These uncertainties are detailed in the following section titled "Sensitivity To Change and Uncertainty". During the upcoming rate finalization process, Hydro's Board will examine all changes that have occurred since the rate submission as well as the OEB's report in determining the appropriate rate increase and level of net income for 1995.

2. Sensitivity to change and uncertainty

There is considerable uncertainty in the current financial outlook which will require management to continue its disciplined and aggressive effort in managing costs. There is significant uncertainty with respect to primary sales. The 1994-1996 Business Plan is based on a no load growth assumption of 135 TW.h, approved in August when 1993 sales were forecast at that level. A one per cent reduction in primary sales, relative to this assumption, would decrease net income by about $65 million for 1995. In addition, there are uncertainties associated with operating performance, the achievement of targeted OM&A reductions, the achievement of interest savings through floating rate debt initiatives, potential litigation settlements, and the potential of losing customers to non-utility generators. The financial outlook includes a contingency of $100 million in each of 1994, and 1995. While it provides additional assurance that planned net income can be achieved it should not be considered sufficient to cover the potential impact of the full range of uncertainties. (Ex. 1.1.14, Ex. 2.1.0, page 6, Vol. TR 1318, line 14 - Vol. TR 1319, line 13)

D. Financing Strategy

1. Debt Level

Hydro's debt level is forecast to be significantly reduced over the period 1993 to 2002 as recommended by the Task Force on Change and emphasized throughout the hearing by the Chairman, President, and Chief Financial Officer. The target level of debt and its achievement have been discussed under the issue of Restructuring in both the Capital reductions and Debt reduction plan sections.

2.&3. Borrowing and Risk Management

The Task Force on Change recommended that Hydro use its callable bond portfolio and floating rate debt to achieve interest cost savings as part of the required cost reductions for the Corporation. As a result, the main focus of Hydro's 1994 borrowing strategy is to reduce the interest cost on Hydro debt and to manage the risks associated with

interest cost reduction activities. In May 1994, the Board of Directors approved a range of 5 to 20 per cent of floating rate debt of Hydro's total debt.

For 1994, financial risk management is focused on managing the interest rate risk on Hydro's floating rate exposure. Hydro has already hedged its floating rate exposure through to the end of 1994. Hedging alternatives for floating rate debt exposure in 1995 are currently under preparation.

4. Foreign Exchange hedging Strategy

Hydro manages its foreign exchange exposure based on the foreign exchange management policy which is intended to protect the Corporation against adverse impacts of a significant decline in the Canadian dollar. The 1994 Foreign Exchange Management Strategy approved in February 1994 recommended no hedging action for 1994 net income, except for flexibility to hedge the 1994 exposure at 77.3 cents (US) or better. This figure was the average Canadian dollar forecast used in the Corporate Financial Plan. This Strategy is currently under review.

5. Financial Ratios

Hydro's key financial indicators of financial soundness are the interest coverage ratio and the debt ratio. In its HR 19 review of Hydro's net income policy, the OEB recommended a target interest coverage ratio in the range of 1.20 to 1.30. Ms. Clitheroe indicated that moving towards a debt ratio in the range of 70/30 would be reasonable and would provide sufficient flexibility for the corporation.

The interest coverage ratio at the end of 1993 was 1.00 and the debt ratio was 92/8, as presented in the 1993 Hydro Annual Report. Over the next few years, the debt ratio will improve, while the interest coverage recommendation of 1.2 to 1.3 may well be exceeded. The interest coverage ratio is forecast to improve to 1.18 in 1994, 1.23 in 1995 and 1.31 in 1996. The debt ratio is also forecast to improve to 90/10 in 1994, 88/12 in 1995, and 86/14 in 1996. By improving the debt ratio, the corporation is pointed in the right direction and headed towards a benchmark considered to be satisfactory for a self-standing utility.

6. Forecasts Reasonableness and Sensitivity

See comments above.

7. Allocation of Financing Expenses

See comments in Restructuring

E. Depreciation

1. Provision for Decommissioning

Hydro's position is that the $62 million top up to the Bruce A decommissioning provision, which Hydro included in its 1993 restructuring charge, is the appropriate amount to recognize the remaining cost to decommission Bruce unit 2.

a. Fixed Asset Removal and Irradiated Fuel Disposal Costs

Hydro's current accounting treatment for its estimated future fixed asset removal and irradiated fuel disposal costs allows for an appropriate match of costs with revenues and is consistent with generally accepted accounting principles (GAAP). Hydro's position regarding the appropriateness of its accounting for fixed asset removal and irradiated fuel disposal costs is summarized in the three reports referenced in HR22's Ex. 4C.12.2.

2. Treatment of Energy Management Expenditures

As was indicated in Hydro's final argument the service lives of demand management programs are reviewed by a Demand Management Service Life Review Committee. The primary role of the Committee is to determine the service lives of Hydro's approved demand management programs and to review those service lives on an ongoing basis. The recommendations contained in the Committees' last report were reviewed by the OEB during HR 21.

3. Assets

It is Hydro's submission that its depreciation policies, which are in accordance with GAAP and reflect general utility practice, equitably allocate the cost of assets to customers over the assets' useful lives. Hydro's provisions for future expenditures associated with assets such as decommissioning of stations and disposal of used fuel are based on comprehensive cost studies; reflect most likely assumptions; and equitably recover the future costs from the customers benefiting from the use of these assets.

Annually, the DRC reviews and makes recommendations to senior management concerning the service lives of all major fixed assets and a selection of components for these assets (plant accounts). In addition, the DRC periodically reviews the costs for fuel channel removal and station rehabilitation to ensure that the underlying assumptions remain current and that the associated provisions are adequate to recover the costs.

The DRC provides both a technical and financial review and is conducted within the framework of Hydro's accounting policies which are consistent with GAAP. Of particular importance to the DRC is the appropriate matching of the cost of these assets to the benefits derived by customers. The DRC's recommendations are reviewed by Hydro's external auditors and a copy of the DRC's report is provided to the OEB.

a. Bruce Heavy Water Plant

As at December 31, 1993, Hydro terminated the production of heavy water for its own use, as there was sufficient heavy water on hand to meet future needs of its existing generating stations. Accordingly, the heavy water production facilities have been fully depreciated and included in the cost of heavy water produced in 1993. It is Hydro's position that the accounting for the Bruce Heavy Water Plant is appropriate, and in accordance with Hydro's stated accounting policy for fixed assets. Hydro further submits that the alternative treatment of including all or a portion of the undepreciated capital cost of the heavy water plant in the costs to be recovered through heavy water sales would not affect the price obtained.

F. Accounting Policy Changes

It is Hydro's position that its financial statements are prepared in accordance with GAAP. Hydro's external auditor's report to the 1993 Financial Statements confirms this. As was indicated in Hydro's Final Argument to HR 21, pages 9-20:

> Within GAAP there is a presumption that accounting policies are applied consistently from one period to the next and are only changed if GAAP changes or if a change in, or a review of, circumstances indicates that a different policy would result in more appropriate presentation of events or transactions in the financial statements. It is in these situations that Hydro develops new or revised accounting policies, which are reviewed with Hydro's external auditors before management obtains approval from Hydro's Board of Directors.

Hydro's extensive filings with the OEB provides appropriate information relating to its accounting policies and practices. (HR 21-Hydro's Final Argument, Pages 9-19)

1. NUG Costing

It is Hydro's position that the accounting treatment for NUG power purchase contracts that have adopted the revised rate structure is appropriate. Under the revised rate structure the amount that Hydro pays to the NUG consists of two components: the cost of the power purchased and the amount of the advance payment element (known as the adder/subtracter). The purchased power element is expensed as incurred whereas the advance payment element is separately accounted for as a long term receivable in accordance with GAAP.

2. Demand Management Account Costs

While the policy on accounting for demand management expenditures allowed deferral of any demand management expenditure that met all of the policy's four deferral criteria, application was restricted to deferral of incentive payments. Gradually, as experience has been gained with these programs, the application scope has been expanded to include other expenditures that are eligible to be capitalized. Expanding the application scope to cover deferral of regional delivery costs and payments to third parties is entirely consistent with Hydro's position on this accounting policy.

For accounting purposes, prior years' program costs are recorded at their historical cost on Hydro's balance sheet in the same way as all supply side generation assets, regardless of changes in system avoided costs. It is Hydro's position that the book value of demand management deferred costs is consistent with the expected future benefits.

For evaluation purposes, all DSM programs will be assessed for their cost effectiveness. For programs that are expected to provide future benefits and meet the capitalization criteria, the costs will be deferred and amortized.

3. Pensions

It is Hydro's position that the accounting changes in the pension costs and obligations policy, which are in accordance with GAAP, are really refinements in the detailed assumptions that go into the calculations from an accounting perspective. A new policy was approved based on a new CICA Handbook requirement for implementation in 1987. Prior to 1987, Hydro pension costs were based on the Corporate contribution to the pension fund each year. In areas where the CICA allowed some choice among several alternatives, the Hydro policy incorporated the more conservative options in order to minimize the impact of changing from the conservative funding basis.

Based on the last six years' experience, it was felt that Hydro could now move to less conservative assumptions, within GAAP, that were more in line with what other commercial enterprises do. Accordingly, on March 8, 1993 certain changes were approved by Hydro for implementation on January 1, 1994 which included adoption of a low-risk rather than a no-risk interest rate as the discount rate used to determine the present value of pension costs and obligations; a straight-line rather than annuity-method for amortizing experience gains and losses and adjustments to past service costs; and a fund valuation based on immediate recognition of changes in market value of the pension fund assets rather than recognition over five years subject to a parallel change being made for funding valuation purposes.

4. Others

On May 9, 1994, accounting policy changes, which became effective January 1, 1994, were approved by Hydro's Board of Directors in respect of further changes to the pension costs and obligations and demand management policies and in the accounting for sales of heavy water and interest capitalization rate for assets under construction. All of these accounting policy changes were filed in HR 22. In addition, on February 14, 1994 Hydro's Board of Directors approved, for rate setting purposes, the continuation of Hydro's present accounting for premature debt retirement and short-term replacement financing. Hydro's position on each of these policies is set out below.

a. Pension Costs and Obligations

It is Hydro's position that the change to the pension costs and obligations policy is appropriate. A risk premium has been added to improve the consistency with the discount rate used by Hydro's actuary to determine Hydro's contribution to the pension fund. Under GAAP, a discount rate may include a risk premium, when such a premium can be reliably determined.

b. Demand Management Expenditures

With respect to the change in the demand management policy, it is Hydro's position that the accounting change is appropriate. In response to the changing business environment, Hydro's strategic direction regarding energy services is changing to incorporate the objectives of energy efficiency, customer retention and economic development.

c. Heavy Water Sales Inventory Accounting

It is Hydro's position that the change in the policy on accounting for sales of heavy water is appropriate and in accordance with GAAP. In the past, heavy water had been produced primarily for new reactor requirements and to satisfy the loss make-up needs of Hydro's existing nuclear system, as well as any sales that materialized. The circumstances relating to heavy water production have now changed. The production of heavy water for Hydro's own use has been terminated as at the end of 1993 and the heavy water plant is now operating only to produce heavy water for sale. Given these changes in circumstances, it is appropriate to account for heavy water sales as a separate business. Therefore, a heavy water sales inventory account has been established to accumulate all costs related to the production of heavy water after January 1, 1994, and profits or losses from heavy water sales are now included in current operating results.

d. Interest Capitalization Rate (ICR) for Assets Under Construction

With respect to the change in ICR for assets under construction, it is Hydro's position that the change to the existing ICR calculation is appropriate to meet significantly changed business circumstances. In the past, when Hydro debt has been increasing, it has been appropriate to look at the interest cost for a new debt in relationship to the amount of money that has been invested in construction and progress at any point in time. Because Hydro is now moving into an era when debt will be decreasing, and it has entered into a number of financing transactions which are making use of some short-term borrowing rates, it is felt that these business circumstances no longer support the use of the previous approach. Under GAAP, the financing cost to be capitalized is generally based on either the cost of new debt incurred to finance an asset, or on the cost of existing debt which could instead have been retired. Hence, Hydro feels it is now appropriate to use the embedded cost of debt as an appropriate measure of financing costs that are being incurred to finance assets under construction.

e. Accounting for Foreign Exchange

It is Hydro's position that its accounting for discounts and premiums on premature debt retirement and exchange gains and losses on $US short-term replacement financing is appropriate to a rate-regulated utility. Hydro further submits that this accounting is not inconsistent with the write-off in 1993 of certain of its assets.

G. Human Resources Plan

1. Compensation, Benefits, Pay for Performance

a. Reducing Labour Costs

Hydro remains committed to reducing labour costs, and compensation differentials between Hydro and the external reference communities. To this end, it has taken a number of initiatives such as negotiating 0 per cent increases for the PWU in 1994 and 1995, and undertaking voluntary downsizing programs which have reduced labour costs.

b. Executive Compensation

Hydro's Board of Directors approved an executive performance pay plan on July, 11 1994 as part of Hydro's restructuring efforts to make Hydro's management more accountable and business-like and to reinforce and sustain the desired shift in corporate culture.

The fundamental elements of the plan, which applies to approximately five hundred executive staff, are:

- corporate, business and local/individual measures and targets will be established each year pertaining to customers, financial soundness, employees and corporate stewardship;

- corporate goals will be paramount with business unit and corporate goals integrated;

- executive staff will receive performance pay as a per cent of base salary if performance results are achieved or exceeded; and,

- at least 50 per cent of the performance pay for executives will be linked to performance results for which they have accountability.

In approving the plan, Hydro made provisions for experience reviews both before the plan is implemented in 1995 and beyond. This review will include OEB recommendations, if any, as well as employee and Corporate experience with the plan.

The directions and the components of the plan are consistent with past findings of the OEB. For example, in HR 21, the Board stated:

> "The Board notes Dr. Fay's evidence and the arguments of some of the parties on the advisability of Hydro instituting some form of pay for performance or incentive compensation for senior executives. It is the Board's opinion that pay for performance should be determined by how well the executives meet the Corporation's priority goals." (HR 21 Report of the Board, 11.0.21)

c. Performance Pay for Non-Executive Staff

Hydro will seek opportunities to negotiate and implement performance pay tied to corporate results for other non-executive staff.

2. Outstanding Contract Issues

a. 1994 Strike Contingency Planning

The 1994 bargaining process was particularly challenging for the parties considering such factors as major corporate restructuring and its impact on bargaining unit members, the nuclear worker decision by the Supreme Court of Canada regarding federal jurisdiction, and Bill 40 amendments to the Ontario Labour Relations Act. In spite of these and other significant challenges, an agreement was reached without a strike or a lockout, or any interruption of service to customers. Hydro's initiatives in strike contingency planning in 1994 established that Hydro cannot operate the power system without the assistance of the Power Workers' Union (PWU).

b. PWU/Hydro Relationship

Positive working relationships with employees and their elected representatives are critical to the success of any enterprise. Hydro supports employee involvement as a general business principle, and believes that defining the nature and form of increased involvement for union representatives is essential. The Consolidated Management Committee (CMC), consistent with the 1994 contract settlement, will be developing initiatives for employee involvement.

3. HR Function

Hydro believes that the Human Resources Function's current level of decentralization is appropriate.

H. Corporate Performance Measures

Hydro submits that its Corporate Performance Measures (CPMs) are appropriate for Hydro in gauging its progress to achieving its corporate mission.

The four key areas of the 13 corporate performance measures are i) Customers ii) Stewardship iii) Employees and iv) Financial. The proposed framework is not static - it will evolve over the coming year as CPMs are tested, targets are set and benchmarking is carried out. Some CPMs may need additional work to better define and to develop data bases to support reporting.

Corporate Performance Measures (emphasis added) are designed to respond to the corporate mission. To the extent that the Mission Statement is unique to Hydro's circumstances, external comparators may or may not be available

for each measure. Accordingly it may not be appropriate to benchmark the targets associated with all measures, but benchmarking will be carried out where comparable external measures can be identified.

Consistent with the framework for the CPMs, business units and functional units have been identifying and developing performance measures that provide a consistent basis for assessment of their contribution towards the corporate goals and objectives. This next level of measures will form the basis for developing individual business plan performance targets.

CPMs and targets for 1994 are in place and Hydro will be reporting actual performance against the 1994 targets. With respect to 1995, the CPMs are essentially the same as for 1994 and will be reviewed and finalized, along with the appropriate targets, early in this year's Budgeting and Business Planning Process.

The Quarterly Management Reports will address progress through 1995 on those performance measures which are reported on a monthly or quarterly basis. Targets for certain measures are reported only on an annual basis.

I. Load Forecast

a. Primary Load Forecast for 1995

Hydro's Load Forecast is appropriate given the DRI economic growth forecast and the load data available at the time of the load forecast. In preparing the load forecast for planning purposes, Hydro will take into account the most recent load data and the 1994 Customer Survey as has been the case in past years.

b. Load Forecasting Methodology:

Hydro's methodology for producing the Basic and Primary Load Forecasts is appropriate. The implications of the characteristics of each model are taken into account for load assessment.

c. Use of Load Forecast for Planning Purposes

Hydro submits that the no load growth planning assumption is appropriate for planning purposes.

Chapter III - ONTARIO HYDRO ENTERPRISES

A. Ontario Hydro Enterprises

Ontario Hydro Enterprises (OHE) group is comprised of two subsidiaries: Ontario Hydro Technologies (OHT) and Ontario Hydro International Inc. (OHI Inc.)

Ontario Hydro International Inc. is an incorporated entity and OHT is a separate business unit.

B. Ontario Hydro Technologies

1. Strategy

OHT is responsible for commercializing Hydro's new technologies. These technologies arise from continued provision of R&D services to other Business Units and external customers. Hydro itself represents 85 per cent of OHT's business. $27.1 million of OHT's revenue is derived from providing Corporate strategic R&D to Hydro to ensure that the Corporation maintains a strategic position in its marketplace.

With the synergy that arises between the provision of R&D services to Hydro and commercialization of technologies, OHT would likely be in a position to earn a profit. Additionally, like other corporations of its size around the world, Hydro has guaranteed access to strategic R&D services.

2. Business Plans 1994-1996

OHT's business goal is to be profitable by the end of 1997. Profitability will be achieved through the rationalization of services, cost reductions, addition of new, profitable services and the commercialization of technologies.

C. Ontario Hydro International Inc.

1. Strategy

OHI Inc. was incorporated in September 1993 and is Hydro's point of contact for a broad base of international customers. OHI Inc. will act as a global utility marketing Hydro's services and products - from integrated resource planning to engineering, utility management and power development.

International business activities and investments contribute to Hydro's corporate mission, through

- making profitable use of Hydro's skills, experience and technology at a time when its domestic needs are not growing; and,

- providing an opportunity for Hydro managers and staff to enhance their capabilities through application and benchmarking in the competitive marketplace, which can be applied back to the core business.

Any additional risk associated with international investments will be managed by OHI Inc. through carefully choosing the countries where investments are made, use of government, agency and private insurance to protect against various risks, diversifying the types of investments and by partnering. The financial returns will reflect any additional risk, but OHI Inc. investments will not be of a speculative nature.

2. Programs

Hydro is fully accountable for the resources OHI Inc. employs, the manner in which they are employed, and the principles and criteria that are used to decide whether or not to participate in a project.

Where OHI Inc. undertakes investments in projects, such as the recent participation in the joint venture acquisition of an electricity distribution company in Lima, Peru, OHI Inc.'s financial statements will reflect the financial impacts of such equity positions. While the Presiding Member recognized that such investments would not be reviewed by the Board in advance, Hydro agrees that the impacts of such investments in any rate year would be reviewable by the OEB.

As in Ontario, the safety, environmental and design standards that are applied to overseas projects will be developed in compliance with host government regulations and industry codes and best practices.

The standards to be applied to international projects will be set by the Hydro Board or its delegate. As a minimum they would comply with Canadian government policy, applicable regulations of the host country and international codes. The standards and criteria will be addressed in OHI Inc.'s business plan, and will be set to ensure that OHI Inc. only participates in projects and operates in a manner that maintains the reputation of Hydro and the Province of Ontario. OHI Inc. will strive to have a positive influence on the practices and standards within the host country.

3. Business Plan

OHI Inc. will file a business plan and financial statements for the next rate hearing.

Chapter 4 - ELECTRICITY GROUP

A. Grid System Business Unit

1. Consistent Energy Set 1994/95

a. Capacity and Energy Forecast

CES 93-4 No Load Growth represents a reasonable outlook of capacity and energy requirements for business planning purposes. The zero load growth assumed for 1995 for business planning purposes is a Corporate business planning assumption.

Capacity and energy forecasts are performed as required throughout the year, to determine the impact of major system changes and/or to identify emerging operational issues. Capacity and energy forecasts incorporating the February Hydro decisions concerning capacity reductions and load forecasts are not significantly different from the CES 93-4 No Load Growth forecast.

For planning purposes, Reserve Margin targets have been set at 18 per cent for the current year, increasing 1 per cent per year to a maximum of 22 per cent. This represents a lowering of Hydro's planning reserve margin targets and is one example of Hydro risk management.

b. Secondary Sales and Purchases

Hydro will continue to market surplus capacity and energy to increase net revenues and will purchase whenever possible to reduce production cost and/or to meet system needs. Hydro is actively pursuing the export market business in an increasingly competitive marketplace.

The revised forecasts for secondary sales, provided at the hearing are 10.2 TW.h for 1994, with revenues of $285 million, and 4.6 TW.h for 1995, with revenues of $117 million. 1994 is an exceptional year for secondary sales for two main reasons: an extremely cold winter and operating conditions on neighbouring utilities. The secondary sales market is very volatile and competitive, and these forecasts are updated on an ongoing basis to reflect market conditions.

Opportunities for secondary sales in 1995 are expected to decline, relative to 1994, due to increased competition, improved conditions on neighbouring utilities and reduced transmission access to the market.

2. Transfer Pricing

The intent behind internal electricity transfer pricing is to reinforce proper business practices within the Electricity Group. The 1994 scheme (TP94) has recognized weaknesses (for example its reliance on a balancing payment for a substantial portion of revenues), but is a good first step in the development of transfer pricing.

The proposed 1995 scheme, TP95, provides additional business unit performance drivers through:

- Tying all generating business unit revenues to performance by eliminating the balancing payment.
- Competition for contracts and options, and the operation of a spot market.
- Having price drive costs, where payments under the transfer pricing mechanism are benchmarked to lowest cost resources while respecting the revenue envelope.

The proposed TP95 was very much under development during the course of the hearings. The information presented at the time was current thinking on the part of the team working on transfer pricing and was given in advance of similar briefings with senior officers of the corporation.

3. Business Plan:

The Grid Business Plan appropriately reflects the new Corporate Business Principles and is appropriate for 1995 rate considerations.

a. Performance Measures and Benchmarking

Grid performance measures, as outlined in the Grid Business Plan, are in the areas of transmission system reliability, net income and worker safety.

The Grid is committed to external benchmarking. However, benchmarking must be done for comparable activities under comparable conditions. There are specific problems associated with benchmarking transmission functions - eg, geography, and load density. Work on benchmarking is underway, and considerable effort will be required to arrive at meaningful benchmarks for the Grid. Hydro believes that the most meaningful benchmarking for the Grid would be for field operation activities and the components that go into the composite performance measures listed above.

b. Reliability and Customer Delivery Interruptions (CDI)

Due to financial pressures, Grid maintenance efforts are below optimal levels, resulting in reduced Bulk System Transmission reliability as measured by the CDI index. The CDI is an averaged, province wide measure. The target CDI index is 21 effective minutes. With the reduced levels of maintenance, it is expected that the CDI index may rise to about 25 effective minutes in 1996 and 1997.

The expected reduced transmission reliability is a short term condition, and not likely to be noticeable to the majority of customers.

The Grid is taking measures to ensure that transmission reliability does not deteriorate to unacceptable levels in the short-term. These measures include utilizing trade-offs between capital modification and maintenance expenditures, and prioritizing work such that resources are allocated to areas of greatest need.

Measures to move Grid maintenance efforts towards optimal levels are currently underway. These measures include moving to predictive maintenance programs and re-engineering our maintenance practices and processes. With these measures and the easing of financial pressures, Hydro expects CDI to return to the target level of 21 effective minutes by 1999.

Transmission reliability is a very important Grid responsibility, and is constantly monitored. Part of Grid's maintenance and transmission reliability recovery plan includes an expectation of the easing of financial pressures. If this easing does not materialize as soon as anticipated, Grid remains committed to ensuring that the transmission reliability does not deteriorate to unacceptable levels. All options will be examined including reprioritizing work programs, predictive maintenance and re-engineering efforts.

c. Sustainable Energy Development (SED)

From the Grid's perspective, sustainability means:

- utilizing integrated resource planning techniques to meet the needs of customers;

- minimizing the impact of Grid facilities on the environment, including greater internal energy efficiency;

- ensuring that the Grid Business Unit is managed in a business-like fashion where cost-consciousness is paramount.

The Grid has primary responsibility for the delivery of electricity, and is using local integrated resource planning (LIRP) techniques to meet the needs of its customers.

The Grid has a formal action plan to implement the Task Force on Sustainable Energy Development recommendations that relate to Grid activities. Grid SED initiatives are in areas such as funding research into electromagnetic field (EMF) effects, LIRP, PCB and other toxic material removal and decontamination, reduction in the use of herbicides, and in-house energy efficiency.

4. Revenues, Costs and Net Income

The pro forma operating statement for 1994 and 1995 represents a reasonable forecast of Grid's revenues and costs. The projected 1995 Grid net income target is $43 million, based on revenues of $8,077 million and costs of $8,034 million.

The major uncertainties for 1995 are in primary and secondary revenues. The Grid is confident that its 1995 cost envelopes will be met. Controlling costs and/or increasing revenues to ensure that net income targets are met will be a key focus of Grid activities and a key responsibility of Grid management.

Grid's planned OM&A program costs for 1994 and 1995 are substantially lower than the 1993 costs of the organizational units mapped to Grid. This reduction reflects considerably lower staff levels, and as well, a leaner organizational structure, judicious program trade-offs and process improvements such as the adoption of predictive based maintenance techniques. Similarly, Grid's planned capital program costs have been significantly reduced. The lower capital costs reflect lower load forecasts, together with savings from LIRP techniques and from innovative project planning, design and construction techniques. The reductions have been made with due regard for customer needs.

B. Hydroelectric Business Unit

1. Business Planning

a. Business Planning - General

The Business Plan for Hydroelectric reflects the unique contribution that Hydroelectric makes to the electric power system in Ontario. Hydroelectric produces about 28 per cent of the electrical energy consumed in the province and provides about 23 per cent of the capacity for less than 7 per cent of the Hydro OM&A cost. For 1995 Hydroelectric plans to produce 35.6 TW.h of electrical energy with an average annual capacity of 6342 MW.

At the same time Hydroelectric is Ontario's least cost electricity supplier at a planned total unit cost of 1.01 cents per KW.h. Hydroelectric provides base load and peaking generation with very little ramp up and shut down time required. Hydroelectric is a renewable and sustainable energy source whose operations have very low environmental impact.

It is Hydro's position that Hydroelectric is a well run business unit, applying sound business management concepts. Also, as a result of the Corporate reorganization, Ontario electricity customers are seeing and will continue to see more improvement in efficiency and effectiveness of hydroelectric operations. Hydroelectric is already recognized as among the top performers in North America. Many examples of improvements related to the reorganization were given by the General Manager, Hydroelectric. The ongoing process of management in Hydroelectric ensures that opportunities for improvement are continuously acted upon and that the planned business results are achieved.

b. Asset Management

The Hydroelectric Business Unit operates 69 generating stations across the Province. These stations have 264 generating units ranging in size from less than 1 MW to 135 MW.

Hydroelectric is adopting a portfolio approach to managing its facilities. The essence of this approach is to identify facilities with like attributes, group them together and manage the various segments of the portfolio in ways that are tailored to the needs of each segment. This is to make sure that resources and effort are efficiently applied to the assets with a minimum of waste. The approach includes identifying facilities where predictive maintenance is appropriate, those where preventive maintenance is appropriate, those where breakdown maintenance is appropriate, and those where no maintenance is appropriate. It includes managing the essential activities of plant maintenance and providing the systems and procedures in the field so activities are carried out on a timely and cost effective basis. It includes assessing each facility and developing an integrated plan for it so it can be properly classified in the portfolio of Hydroelectric assets.

Hydro submits that it is appropriately managing the Hydroelectric Business Unit assets.

c. Capital Planning

Hydroelectric has developed a capital plan and decision making process which is appropriate to protect the investment in Hydroelectric assets and take advantage of enhancement opportunities in a cost effective manner.

In making decisions about investment in individual facilities Hydroelectric considers all relevant dimensions. These include the specific waterflows, the undeveloped electrical potential of the site, the economic viability of continuing or modifying the facility, the community impact, the environmental impact and the worker and public safety implications of the facility. A simple focus on initial capital project investment to rehabilitate or retrofit a facility is inappropriate. All lifecycle costs of owning and operating a facility must be considered.

Hydro submits that the OEB should support the integrated facilities and portfolio management processes used by Hydroelectric, recognizing that the individual facilities will be considered on their own merit. This individualized plant review process effectively addresses any concerns about SHARP. Hydro submits that the Hydroelectric business unit is using suitable methods in its management of capital assets and is making reinvestment decisions in an appropriate manner.

d. Aboriginal Interests

The Hydroelectric Business Unit works in collaboration with Hydro's Aboriginal and Northern Affairs Branch (ANAB) to respond to the interests of aboriginal peoples.

e. Benchmarking and Performance Measures

Benchmarking of practices and performance is an effective way to identify opportunities for Hydroelectric to improve its performance. Benchmarking is one of the tools to achieve continuous improvements in efficiency and effectiveness of the Hydroelectric Business Unit.
Benchmarking work is under way and will be addressed further in the Hydroelectric Business Plan for 1995.

f. Sustainable Energy Development

The principles of sustainable energy development (SED) are already firmly embedded in the policies, procedures and day-to-day operations of the Hydroelectric Business Unit.

g. Private Sector Interest in HBU Assets

There is considerable interest in Hydroelectric assets and possible business ventures with Hydro expressed by outside groups. It is in the interests of the electricity customers in Ontario for Hydroelectric to maintain a reasonable degree of confidentiality around key operating information. This is in order to keep from putting on the public record information which could give undue advantage to parties who might ultimately wish to pursue such ventures.

2. Revenues

For 1995, Hydroelectric is committed to delivering power 35.6 TW.h of energy to the Grid from an average capacity of 6,342 MW. This contracted level contains some risk, i.e. water availability, is influenced by the weather and is beyond the business unit's control. However, Hydroelectric believes that the level of risk is acceptable as the energy production forecast is based on median long term historical water availability.

3. Costs

Hydroelectric is committed to managing costs to the level forecasted for 1995 and believes the work program objectives can be achieved with the forecasted OM&A level. The restructuring has provided considerable benefits to the Hydroelectric business unit, in particular, the establishment of cost accountability with one business leader that was previously spread through 5 different branches. As well, accountability for operations at a local level has provided more focus for controlling costs within a framework for maximizing revenue. Initial results of local initiatives have shown a positive impact on the business. Hydroelectric has implemented a variety of measures that reflect actual performance against plan to provide information for redirecting work and the flow of resources as necessary.

4. Net Income

Hydroelectric is committed to achieving the forecast net income for 1995 of $69 million. As noted in the previous sections on Revenues and Costs, Hydroelectric acknowledges that there are risks in the areas of water availability and water rental costs. However, these are acceptable risks that any organization would face in the circumstances. Hydroelectric has a management system in place to monitor and manage the business, measure performance, and feed back information for program adjustment to enable commitments to be met.

C. Nuclear Business Unit

1. Business Plan 1994-1996, including performance measures

The Nuclear Business Plan 1994 - 1996, dated February 1994, is a sound business plan for Ontario Hydro Nuclear (OHN).

For the first time, all the functions necessary to run the nuclear business have been brought together in one unit. OHN is fully accountable for its own financial performance, both the revenue and cost side.

A major feature of the management of the OHN business is the use of continuous quality improvement principles. Specifically, OHN uses a Business Improvement Process, which utilizes a tripartite decision making team, with representatives from OHN's two major unions and management.

The OHN leadership team has agreed on an appropriate priority list of performance measures for strategic planning.

The General Manager has a performance contract with the Hydro President, which includes twelve performance measures. Targets for six of the measures have been benchmarked, and the remaining targets will be benchmarked within a year. The first quarterly report, measuring performance against the GM's contract, is provided in response ?

2. Technical Problems

There was almost five years of continuous annual deterioration in the performance of Hydro's nuclear units up to 1992. This turned around in 1993.

Hydro has had great success in developing a tool, called SLAR, which is capable of moving the garter springs, to ensure that the spacing is maintained between the pressure tubes and calandria tubes. This means Hydro will not have to prematurely retube its reactors.

Hydro has had success, and been able to demonstrate that success, in cleaning the steam generators.

Hydro has overcome its fuel channel problems:

> Fuel channel degradation mechanisms are now well understood and the various inspection and maintenance techniques well developed. While there is considerable planned work on fuel channels ahead, the risk of significant unplanned production losses is considered low. (Ex. 4.1.5, page 5)

Darlington had a number of problems, all of which have been rectified, and the plant is now running very well.

3. Outage Rates

The deterioration in the performance of Hydro's nuclear stations was turned around in 1993. In 1993, the capability factor was 69 per cent. This year, Hydro is on track to achieve 75 per cent.

There is now a major focus on reducing the length of planned outages, and in scheduling the outages during the times of the year when the system marginal cost is low.

The forecast outage rates for the rate year, as used in the Business Plan, are reasonable for planning purposes.

4. Plant Capability and Capacity Factors

The plant capability and capacity factors used for business planning purposes are appropriate. (See Section 3, above.)

5. Bruce Unit 2 Shutdown

Hydro was facing substantial long-term capacity and energy surplus. Hydro also wanted to reduce its capital expenditures, so that it could start to refund its outstanding indebtedness.

There was a problem at Bruce Unit 2 related to a unique one-time incident, when a lead blanket was left in a steam generator after maintenance work was completed. This was not discovered for four years, by which time the lead had totally dissolved and dispersed throughout one bank of steam generators. The lead at high temperatures proved to be one of the most corrosive substances to attack the very corrosive-resistant L-600 steam generator material. There was, in fact, excessive deterioration of the steam generator tube material.

The above factors resulted in a decision to cancel the previously approved retube, and to schedule the lay-up of Bruce Unit 2 for September, 1995.

6. Heavy Water Production

The production of heavy water for future use by Hydro was terminated at the end of 1993.

The heavy water division has been set up on a fully commercial basis and operates only if it can find markets for its products.

Hydro won one of the largest heavy water sales ever awarded, namely to supply most of the heavy water for three CANDU units in Korea. This will keep the Bruce Heavy Water Plant operating until early 1997.

The revenue from heavy water sales covers all production costs and allows for a profit.

7. Revenues, Costs and Net Income

Ontario Hydro Nuclear is fully accountable for its financial performance, both the revenue and cost side.

The nuclear business is being run more competitively and it's being run as a business, where the bottom line matters."

The projections of revenue and costs for OHN, for the rate year, are challenging, but achievable. Subject to potential adjustments during the 1995 business planning process, it is expected that OHN will achieve its targeted net income for 1995 of $440 million. However, the following risks to achieving that target have been acknowledged.

- The high debt load of OHN makes it vulnerable to interest rate fluctuations.

- Any fall in electricity demand would jeopardize OHN's revenue.

- Failure to achieve productivity improvements would result in higher unit outages (decreasing revenue), and/or higher OM&A costs.

- There is a risk that it will be necessary to clean steam generators at Pickering A, with a resultant increase in planned outage time and OM&A costs.

D. Fossil Business Unit

1. Business Plan 1994-1996, including performance measures

The Fossil Business Unit (FBU) is well on the way to becoming a profitable business. The 1994-1996 Business Plan demonstrates some of the formative initiatives which have been taken to carry the business unit to commercial achievements which are comparable to its demonstrated operational excellence. OM&A costs in the Business Plan represent reductions of $70 million below the expenditures for 1993. These reductions were achieved primarily by recognizing that projected energy generation is about 15 TW.h rather than the 30 TW.h levels experienced in the recent past and then scaling operations accordingly. Additionally, there were cost reductions achieved by rationalizing all the fossil related functions into a cohesive business entity. As part of the continuing effort to be a profitable business the FBU maintains a watchful review of all costs.

Fossil uses a system of performance measures to monitor results against the targets of the Business Plan as well as to make comparisons in key areas with the best external organizations. The measures are aligned with the Fossil Vision and conform to the Corporate Key Results Areas. In keeping with the expanded focus of the business unit, Fossil is widening the scope of the external comparisons into areas such as the activities related to Sustainable Energy Development. This effort includes establishing a database of comparative performance data and determining the best practices comparators for benchmarking.

2. Mothballing - Lennox and Lambton

As a result of the Capital Capacity Reduction (CCR) review, the Hydro Board approved mothballing four 500 MW units, two each at Lambton and Lennox generating stations, as one of the measures for addressing the projected capacity surplus. The decision was based on estimates that mothballing these units will reduce OM&A by about $15 million, net of the cost for caretaking the units in the mothballed state. In addition to the OM&A savings, it was estimated capital expenditures could be reduced by about $180 million, from the cancellation of rehabilitation work on the two Lambton units.

3. Environmental Impact - Emissions

Fossil testified that lowering environmental impacts is a key element in being a profitable business. To this end the business unit has used three approaches. The first approach is to reduce the amount of effluent per unit of energy produced, such as installing scrubbers at Lambton and switching to dry ash management at Nanticoke. The second approach is to reduce the amount of fuel per unit of energy produced, through improvements in conversion efficiency

and reducing in-plant electrical load. The third approach is to increase the number of useful products from each unit of energy. This has been achieved by diverting by-products, such as ash and gypsum, to commercial uses as well as pursuing opportunities for cogeneration. Additional measures for managing environmental impacts are being developed as part of the implementation of sustainable energy development. Performance in relation to these measures will be included in the expanded benchmarks mentioned above.

4. Revenue

The revenues indicated in the Business Plan are based on the 1994 transfer pricing scheme. As a swing resource, the Fossil Business Unit is potentially most subject to variations in revenue as a result of changes in the demand for electricity as well changes in other generating resources. With the 1994 transfer pricing scheme, fluctuations in revenue are nearly offset by changes in cost, because the energy payments to Fossil are almost the same as the incremental fuel cost. It is expected that the transfer pricing scheme for 1995 will establish the appropriate links between revenue and the value of the products provided by the business unit. Therefore, swing resources would be priced accordingly. This pricing scheme should provide the mechanisms for establishing the autonomy and accountability required to ensure a focus on business results.

5. Costs

The OM&A provided in the Fossil Business Plan was intended to allow the business unit to fulfil its role in providing the flexibility needed to follow load daily, adjust to seasonal variations and accommodate changes in demand. In the first quarter of 1994 Fossil demonstrated that flexibility by producing almost 40 per cent more than the amount of energy that was forecast for that period. This was accomplished despite the Business Plan reduction in OM&A from the 1993 level. The adjusted Business Plan projection of $962 million as the total operating cost for 1995 represents the best estimate of Fossil expenditures, not including the impact of the CCR, required to fulfil the short term requirements and maintain the capability for long-term operation.

In the Business Plan fuel cost for 1995 was estimated as $151 million on the basis of a forecast of 7.4 TW.h. Actual fuel cost will vary with the amount of energy generated but these variations are expected to be offset by changes in revenue.

6. Net Income

Fossil recognizes net income as one of the principal indicators of its success in being a profitable business. Therefore in the Business Plan the business unit established a challenging but achievable net income target of $69 million for 1995. With net income as a primary objective the business unit is in a better position to make prudent decisions, because of the enhanced facility to assess the trade-offs between revenue and cost.

As indicated above, in the discussion about revenue, the Business Plan assumption is that incremental energy payments will come close to offsetting incremental fuel costs. On the cost side, the Business Plan identified uncertainties such as exchange rate exposure and potential escalation in OM&A as a result of wage settlements.

Collectively, these uncertainties have a relatively small impact. On balance the Fossil Business Plan presents a realistic projection of net income for 1995.

Chapter 5 - ENERGY SERVICES AND ENVIRONMENT GROUP

A. Energy Services Planning and Strategy

With the reorganization of the Energy Management Function in 1993 into the Energy Services and Environment Group (ES&E), a new energy services strategy was formulated.

The strategy responds to the major economic changes and competitive restructuring that are affecting the province; the loss of load that was occurring due to the recession and high rate increases of previous years; customer perceptions that electricity prices were out of line with the value of the services they were receiving; market barriers to energy efficiency; customer diversity; and, the perceptions of customers and other stakeholders that they were isolated and removed from the decision making processes of Hydro.

The strategy has a broad thrust of making Hydro more customer responsive and was used as the cornerstone of a series of consultations with customers, allies and other stakeholders.

The strategy has four basic objectives: Energy Efficiency, Customer Services, Customer Retention, and Economic Development.

The ES&E strategy is supported by the SED Report which serves as a basis for consideration of Hydro's policies and practices on sustainable development. Key recommendations of the SED report that impact on the Energy Services Strategy involve the monetization of externalities (full cost accounting) and the establishment of an Integrated Resource Planning (IRP) process.

Of prime importance to the effectiveness and acceptance of the strategy by customers and stakeholders is the public consultation process, carried out not only for the strategy itself, but also for its specific strategic elements such as sustainable development strategy, rate proposals and energy efficiency program direction.

B. Non-Utility Generation (NUG) Strategy and Programs

1. Load Displacement Generation

Hydro's treatment of load displacement generation is appropriate and consistent with its position with respect to purchase generation during a period of surplus capacity. Most load displacement generation represents uneconomic bypass which will place a burden on the remaining customers and society as a whole. Therefore support cannot be provided for such generation initiatives.

Furthermore Hydro must retain the flexibility to respond to customer initiatives, as it did for the two load displacement projects in Sarnia. There was a high risk of significant load loss which would have resulted in higher rates for other customers. Therefore, both agreements provide a net benefit for the remaining Ontario customers.

2. Industries at the Bruce Energy Centre

Ontario Hydro is supportive of the type of development represented by the Bruce Energy Centre. However, Hydro's support of any such development must be in the context of its economic development initiative and cannot include a rate subsidy by other customers.

3. Location of NUG Division

The location of NUG Division in ES&E is appropriate. Because most new activity is related to load displacement generation, having NUG Division as part of the customer relationship function makes good sense.

4. NUG Contracts

Hydro made commitments to NUG developers and entered into NUG contracts to meet forecast needs for capacity and energy. As the surplus capacity situation became apparent, Hydro acted to reduce the size of or delay NUG projects.

Hydro will not abrogate contractual commitments it has made. However, there may be some short-term opportunities for cost reductions. Therefore, Hydro is exploring opportunities to reduce the impact of NUG payments by entering into periodic plant "back off" agreements.

5. Renewable Energy Technologies

Hydro is in the process of defining a technology development effort as a near-term measure to support renewable energy technologies (RETs). This effort is in the development stage and has not been submitted for review by Hydro's senior management.

The objective of this effort is to gain utility operating experience with RETs and address market barriers. It is not intended to acquire significant quantities of RETs, as such acquisition would be inappropriate in the current surplus capacity situation.

C. Energy Management Programs - Energy Efficiency Programs

1. Prioritization of Lost Opportunities

Hydro is committed to achieving all cost-effective DSM available under the constraints imposed by Hydro's financial situation and within the framework of the IRP process currently under development.

With the current financial constraints, Hydro has prioritized and targeted capturing cost-effective lost opportunities. Lost opportunities are a fundamental concern in analysing markets and in designing initiatives. Hydro is also pursuing retrofit energy efficiency measures as it is recognized that these can contribute not only to energy efficiency, but to Corporate objectives related to economic development and customer retention.

The current energy efficiency program mix moves toward a system or process orientation that incorporates multiple technologies and provides a comprehensive technical solution for each market.

2. Transition to Non-Hydro Cost Incentive Strategy

Hydro has not abandoned the use of incentives for DSM Programs, but has broadened the scope of the types of incentives it utilizes to include more market-driven incentives, along with selective use of Hydro cash incentives. Hydro acknowledges the importance of incentives in achieving its DSM goals, but has recognized that incentives can include options other than Hydro cash. By leveraging the use of marketplace cash and non-cash incentives, Hydro will be more effective in influencing fundamental drivers in the marketplace towards energy efficiency. Hydro is moving in the same direction as other utilities in moving away from utility cash-incentive driven DSM.

Hydro has made the transition to promoting energy efficiency through a market-driven strategy rather than a Hydro-driven strategy. In the past Hydro offered incentives to help kick-start the efficiency business in Ontario and overcome market barriers to energy efficiency. Hydro-cash incentive programs increased awareness of energy efficiency in Ontario, and as a result, the market for energy services has grown. Significant progress has been made toward the building of a successful and self-sustaining energy efficiency industry in the province.

3. Impact on Rates

Hydro considers rate impacts to an appropriate degree when designing energy efficiency programs. Rate impacts are best minimized by minimizing all components of program costs.

4. Avoided Costs

The GEC recommends that Hydro should revisit its avoided cost methodology taking into account the items enumerated in chapter 5 of its prefiled evidence. Hydro will review the GEC concern when preparing future ISVPEs.

5. Energy Management Programs for Low-Income Households

Hydro will consider the development of energy efficiency initiatives for low-income consumers within its current program principles. All Consumer market initiatives are open to all segments of the population.

6. Use of Cost Effectiveness Tests

Hydro will continue to use the Total Customer Cost Test (TCCT) as the hurdle test until such time as an acceptable value for externalities has been determined. At that time, Hydro will switch to use of the Total Resource Cost Test (TRCT). In selecting the most cost-effective program designs, Hydro does place emphasis on the results of the Rate Impact Measures (RIM) test.

7. Fuel Switching

Hydro will continue to provide unbiased information on alternative fuels to customers who request it. Hydro is currently reviewing its policy on fuel switching, but at this time, Hydro is not promoting fuel switching and is not providing incentives to customers to switch to alternate fuels. Hydro will not require utilities to include a recommendation on switching to alternative fuels as part of the Home Power Saver Audit.

8. Consultation on Program Design

Hydro supports the formation of an advisory panel, as a continuation of the Energy Efficiency Consortium concept, to provide an ongoing vehicle to review DSM program concepts and provide input on program mix and program design details. (Vol. 21, TR 4178 - TR 4179)

9. 1995 DSM Program Details

Hydro provided the full amount of detail available at the time of submission and response to interrogatories on preliminary 1995 DSM initiatives. Hydro will provide more detailed information in the next rate hearing on current plans and on 1995 plans, on longer term directions and proposals.

10. Cooperation with ESCOS

Hydro will develop initiatives based on a market-driven strategy, prioritizing cost-effective lost opportunities, and if resources permit, cost effective retrofit situations.

Where it is the most appropriate program design, Hydro will undertake initiatives in cooperation with CAESCO members.

11. Individual Metering Initiatives

Hydro is not pursuing initiatives related the promotion of Individual Metering.

12. Cost to 1993 Programs

In response to significant financial constraint in January of 1993, Hydro carried out a rigorous, multi-dimensional review and analysis of existing programs and made rational business decisions in revising its DSM program portfolio for 1993/94.

13. Energy Efficiency for Industrial Customers

Hydro believes that industrial customers are able to manage their own energy efficiency, but need Hydro's energy efficiency initiatives for business markets which facilitate and support awareness and implementation of new or emerging technologies, provide technology transfer across different market segments, and support and facilitate implementation of efficiency measures where market barriers exist.

14. In-house Program

Hydro has a viable in-house energy efficiency plan in place supported by appropriate performance targets.

D. ES&E Business Plan

The ES&E Business Plan was developed under the principles of the ES&E strategy. The Business Plan includes targets and performance measures corresponding to each strategic objective.

Funding for ES&E in 1994 was based on a fixed percentage of corporate revenues for energy management programs and additional funds for other services provided by the ES&E Group. Future funding for Energy Services and Environment will be determined through an approach which directly ties ES&E's funding to its objectives and the value of its products and services.

Chapter 6 - RATES

A. 1995 Cost Allocation Methodology and Results

The cost allocation process for 1995 is based on the existing costing and pricing principles and structures. Hydro plans to review the existing cost allocation and customer delineation with stakeholders as part of the continuing process of rate restructuring initiated late in 1993.

1. Planned $17 Million Direct Deficit and Rural Distribution Surplus

In making a rate proposal, Hydro must consider factors including the effects of the rate increase on customers. In the face of current economic conditions and a wide variation in initial cost allocation results, the consideration of customer impacts and rate stability supported making a rate proposal based on a planned deficit in the direct industrial customer class of $16.5 million and a planned surplus in rural distribution function of $35.5 million. The

magnitude of the surplus/deficit was determined in order to contain the impact to a single distributor (i.e. within the power district) and thus result in no net impact on the municipal class. The rural distribution function surplus offsets both the direct class deficit and any impacts on rural rate assistance. The $10 million rural distribution function deficit recovery, serves the purpose of continuing the ongoing reduction of the existing deficit balance. The municipal class is therefore not impacted by these actions.

The current cost allocation policy tracks these surplus and deficit balances, charges interest as appropriate, and draws balances down to zero over time.

Hydro submits that the planned $17 million deficit for the direct class and the associated planned $46 million surplus for the rural distribution function is appropriate and should be implemented in the 1995 rates.

B. Proposed Rates

1. RRA

Rural Rate Assistance (RRA) is a statutory obligation Hydro has no plans to raise this matter with the government.

2. Direct

All customers should bare the costs of energy efficiency programs.

3. Municipal

Hydro sets its customer class rates on the basis of rational rate making and cost allocation principles.

C. Experimental/Optional Rates

To adapt to a more competitive and demanding environment Hydro must become more flexible and responsive in its delivery of services, including pricing. The 1995 rate proposal was developed to support the energy services strategy which responds to current realities. The expanded menu of rate options takes advantage of current system conditions in order to offer customers more flexibility in their operation and more control over their electricity bills. Hydro submits that appropriate rates can benefit both the utility and its customers. The rate options identified below should be implemented for 1995 as proposed.

The Surplus Power Rate is based on the Surplus Power Rate experiment ending this year and aims to encourage incremental sales of surplus capacity.

Short Term Incremental Power is also aimed at surplus capacity and encourages incremental sales by offering increased reliability with a lower discount than Surplus Power.

Guaranteed Rates are aimed at those customers willing to pay a premium for stable and predictable rate increases over the next three years.

Load Retention Rates are aimed at customers that have the option of being supplied by a utility not connected to the Hydro system without having to move.

A second Real Time Pricing (RTP) experiment is proposed to test the feasibility of a different reconciliation method for revenues for participating customers. Unlike the current RTP experiment which reconciles RTP revenue to the Direct class, under the new experiment the reconciliation will be done on a customer by customer basis.

The second experiment also further refines the hourly price signal to reflect both marginal capacity and energy costs, and to provide for an additional signal at times of system need. This additional signal will result in greater hourly price differentials, which will facilitate the analysis of shifting between individual hours.

6. Backup Power Rates

The Backup Power rates proposed by Hydro to replace the current Supplemental and Replacement Power rates offered to Direct customers and Distributing companies, reflect the true cost incurred by Hydro in offering this type of service for customers having their own generation and requesting backup power from Hydro.

7. Discount Demand Service

Hydro's proposed rates for 1995 for DDS are consistent with the methodology used to establish 1993 DDS rates and reviewed by the OEB in 1992. The methodology used was accepted by the OEB in 1990 for implementation in 1991. The proposed phase-in represents a reasonable trade-off between the value of interruptible load on the system and the impact to existing interruptible customers.

C-II b Current Experimental Rates

Hydro is currently conducting three rate experiments: Surplus Power and Load Retention are due to end in 1994 and Real-Time Pricing (RTP) will continue into its third and final year in 1995.

The results to date of the RTP experiment show that customers are satisfied with the experiment, and have shifted load out of the peak period and between seasons in response to the peak period adder. While analysis is ongoing, it has been noted that the low hourly price differentials do not afford the customer opportunity to take advantage of shifting between hours. The hourly price signal in the second RTP experiment makes provision for an additional signal resulting in larger differentials at time of system need. Similarly, the results to date from the Surplus Power rate experiment indicate that such a rate can be designed, implemented and applied on a day to day basis. Finally, experience suggests that Load Retention rates can also be successfully established.

D. Rate Restructuring Initiative

The Energy Services strategy is to:

- promote cost-effective energy efficiency
- provide cost-effective value-added customer service
- better ensure customer retention
- encourage and support economic development in the Province.

Rates is a key tool in achieving the strategy and the proposed optional rates were developed to support the ES&E strategy, and meet customer needs.

1. Probe International, as described in the HR 22 Intervenor Funding application of the Energy Probe Research Foundation, is a project of the Foundation, as is Energy Probe.